

ASPECTS OF EDOLO GRAMMAR

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ASPECTS OF EDOLO GRAMMAR

by

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Presented to the Faculty of the Graduate School of
The University of Texas at Arlington in partial Fulfillment
of the Requirements
for the Degree of

MASTER OF ARTS IN LINGUISTICS

THE UNIVERSITY OF TEXAS AT ARLINGTON

May 1994

ACKNOWLEDGEMENTS

I want to express my appreciation, first, to Dr. Donald A. Burquest who served as my supervising professor. His academic assistance has certainly been great throughout my study program, but perhaps his most valuable assistance has been his belief that I could accomplish this task in the time I had allotted. I am indebted to him for his "speaking many words of encouragement" to me.

My wife, Debbie, has helped me in countless ways, as she always does, not the least of which was as a colleague in language learning and analysis, and I thank her.

I wish to express my thanks, also, to the Papua New Guinea branch of the Summer Institute of Linguistics for financial support of this study program specifically, and for logistical support during the period of field work. This support took many different forms, but I am particularly thankful to the personnel of the aviation department of the Papua New Guinea branch for their invaluable service in providing access to the language area.

There are many others whose support, financial and otherwise, made this study program possible and who make our field work possible. I thank them and the God we serve.

April 14, 1994

ABSTRACT

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Publication No. _____

Jan David Gossner, M.A.

The University of Texas at Arlington, 1994

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The Edolo people (elsewhere Etoro and Etolo) live in the Southern Highlands Province of Papua New Guinea. Edolo is a Papuan language, a member of the Bosavi family, with an SOV typology. Grammatical relations are indicated by case marking, which follows an ergative/absolute system. Edolo uses a body part counting system, counting thirty-four parts, and has a complex system of spatial deictics. Clause chaining and tail-head linkage are widely used. Much of the present work consists of a word level description that includes an accounting of the complex verbal morphology. Phrase structure and clause structure are examined following the Government and Binding paradigm. Discourse genre distinctions and participant reference are considered briefly. The system of participant reference is a bit unusual, there being very limited subject agreement marking and no switch-reference marking. Two appendices are included with interlinearized vernacular texts.

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LIST OF ABBREVIATIONS

ABS	absolute	IMP	imperative
ACCOMP	accompaniment	INSTR	instrumental
ADV	adverb	INTNS	intensifier
Agr	agreement	IO	indirect object
ALL	allative	IRR	irrealis
ASP	aspect	ISOL	isolative
BEN	benefactive	LOC	locative
CAUS	causative	NEG	negative
CMPLV	completive	NR	nominalizer
COMP	complementizer	p	plural
d	dual	PAST	past
DAT	dative	PROH	prohibitive
DEF	definite	s	singular
DESID	desiderative	SEQ	sequential
DUB	dubitative	SIM	simultaneous
DUP	reduplication	SL	special language (<u>pandanus language</u>)
EMPH	emphatic	YNQM	yes-no question marker
ERG	ergative	1	first person
EV/Evid	evidential	2	second person
EXCL	exclusive	3	third person
FUT	future		
GEN	genitive		

INTRODUCTION

1.1 Purpose and scope

While a great deal of anthropological research has been carried out among the peoples of the Mt. Bosavi area of Papua New Guinea and extensively described,¹ there has been little linguistic analysis of any of the approximately fifteen members of the Bosavi language family. While there is linguistic work in progress in several of these languages, the only extensive description that has been completed to date is that of the Samo language written by Dan and Karen Shaw (e.g. Shaw and Shaw 1977). It is my hope that the present work will be the first of several Bosavi family linguistic descriptions to be made available in the next few years to the linguistic community.

What may well be considered the central motivation behind this present work is aptly stated by Charles Ferguson in considering the value of his work in "Assumptions about nasals" (1966:54):

First of all there is the advantage gained in any field of science from making unspoken assumptions explicit. This process may reveal mistaken or mutually inconsistent assumptions, or may give new insights into the theory of the particular science.

I expect the value here to lie in making explicit the assumptions about, and tentative analyses of, Edolo grammar that have previously existed for the most part only in my mind. It is my hope that much of the process of revealing mistaken or inconsistent assumptions and gaining new insights will have taken place before the completion of this

¹Eight cultural groups have been ethnographically described within the Bosavi language family (Kelly 1993:27).

work. I know that much of it will take place upon further research and reflection and trust that some will take place through the thoughtful consideration of the reader.

While a certain amount of linguistic understanding on the part of the reader is assumed, it is my desire to make the information presented here available to anyone who may find themselves interested, whether among my colleagues in the Summer Institute of Linguistics, or elsewhere, regardless of their particular theoretical linguistic persuasion. The theoretical framework of my studies has been in the generative school. While most of the description to follow is given in a fairly non-theoretical form, I have included some limited comments in some sections applying current Government and Binding Theory (GB), as exemplified in Haegeman 1992, for instance. For the most part these comments are at the end of sections they address, which should facilitate their being either attended to or ignored, as the reader may wish. The main exception to this limited application of GB is in Chapter 4, where more extensive application of the theory is made in considering phrase structure.

It is my intention with the present description to make available to the linguistic community data and some potential analysis concerning the Edolo language. This is information that has not previously been generally available. Due to a number of factors the description given here must be regarded as still tentative. While I believe the corpus of data used is reasonably accurate, there is still a lot that remains to be learned about the language before many areas can be clearly explicated. This work should be viewed as work in progress and, in a sense, a measurement of the progress in language learning and grammatical analysis made by one individual after spending approximately fifteen months over a period of nearly three years immersed in a language and culture not his own.

1.2 The language and setting

Edolo is a language of Papua New Guinea spoken by a population of about 1,000 people living in fourteen villages. The Edolo people live primarily in the Southern Highlands Province with a few villages in Western Province (see Figures 1 and 2). Edolo is a

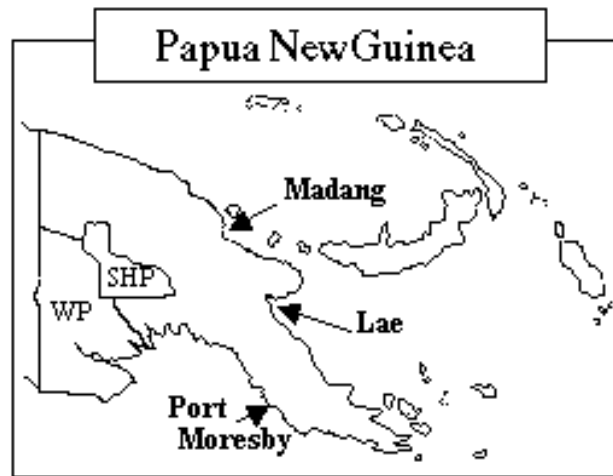


Figure 1. National map

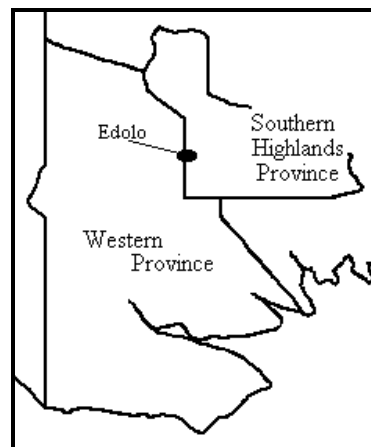


Figure 2. Provincial map

Papuan language of the Trans-New Guinea Phylum, Central and South New Guinea Stock, a member of the Bosavi family of languages (Wurm 1982:132,136). They live on the Papuan Plateau, an area of transition from the lowland rain forest to the mountains and valleys of the highlands. The Edolo land area encompasses a range of elevations from around one thousand to almost nine thousand feet (300 to almost 2,700 m) on the southern slopes of Mount Haliago (Mount Sisa or O'Malley Peaks on government maps). Villages are situated in the one to four thousand foot range. The total land area claimed by the Edolo comprises about 80 square miles (Kelly 1977:17-18). The present description is primarily based on data gathered during about fifteen months spent living with the Edolo people in the period extending from August 1990 to June 1993. Working with the Summer Institute of Linguistics, my family and I lived in the Edolo village of Aya, which is located at 6° 14' 17" South latitude, 142° 41' 50" East longitude at an elevation of 3,100 feet (945 m). Access to the language group is attained either from Komo on foot, or from Dodomona by air. Dodomona is the only Edolo village with an airstrip and is located at 6° 14' 35" South latitude, 142° 37' 4" East longitude in the western part of the language area at an elevation of 1,900 feet (580 m). Dodomona is approximately 5.5 miles west of Aya, a six to eight hour hike.

1.2.1 Linguistically interesting features

There are a number of grammatical features described here that may be of interest, particularly to the reader who is not already familiar with Papuan linguistics. Clause chaining (§ 3.2.2.2) is a very distinctive and widely used pattern in Edolo, as in many Papuan languages. Related to clause chaining is the complex verbal morphology (also § 3.2.2.2), and the morphological and functional distinction of the three verb types; subordinate, medial, and final (§ 5.5). Edolo has nine basic pronouns but their inflection makes for a fairly extensive pronominal system (§ 3.3.1.1). Pronominal inflection

includes, as does nominal inflection, core argument case marking, which follows an ergative/absolutive system (§ 5.3). Edolo uses a body part counting system with thirty-four parts being counted (§ 3.3.4), and has a system of spatial deictics that allows for quite specific directional reference (§ 3.3.8). The means of participant tracking is a bit unusual, even in Papuan languages, there being very limited subject agreement marking (§ 3.2.2.1) and no switch-reference marking (§ 6.2).

The Papuan branch of languages is known for its inter-language diversity. Nevertheless, the student of Papuan linguistics will find many of the grammatical features described herein to be fairly similar to patterns already attributed to at least some part of the Papuan language family.

1.2.2 Speech variations

There are two varieties of Edolo, Eastern and Western, with the primary phonological distinction being that the Western variety has an alveolar nasal stop phoneme, /n/, which the Eastern does not, substituting /l/. There are smaller speech differences within the two types and there seem to be some differences from one village to the next. The lectal situation is revealed in the following information adapted from Purnell (1988:14-15):

Lexicostatistic Groupings

Gimisado EASTERN

99 **Galoma**

98 97 **Aya**

96 93 97 **Bobole**

90 90 89 88 **Busuba**

75 75 74 73 79 **Dodomona** WESTERN

69 69 68 68 70 77 **Dolabi**

Percentages of Apparent Cognates Between Edolo Villages

The average percentage of apparent cognates² for the five villages in the eastern area is about 93. . . .

The percentage of apparent cognates between the two western villages surveyed is 77. This is fairly low, and shows there is wide variation in the way these two villages in the western area speak Edolo.

The average percentage of apparent cognates between the villages in the eastern area and the villages in the western area is about 72. This is also fairly low, reflecting a substantial difference in the way the two speak Edolo.

The data used for the above analysis was gathered during a fairly short time in the language area and should be considered tentative.

In this thesis I consider primarily the Eastern variety and use the term Edolo hereafter to mean Eastern Edolo except where specifically stated otherwise.

In addition to the geographical lectal situation, there is a special language that is used in certain circumstances. Franklin (1972) uses the label ritual pandanus language to describe a special form of the Kewa language used by speakers while gathering pandanus nuts in certain locations. The term pandanus language seems to have stuck and gained wider use since then to describe a special or hidden form of speech, and Franklin has recently suggested that the use of the label ritual "may have assigned more exclusive status to it than was warranted" in Kewa (1992:1). Dixon (1972:32-34) describes a very extensive language of this type for Dyirbal that he labels a Mother-in-law language. Special or hidden languages are often considered a type of word taboo. While word taboos of various types are common in Papua New Guinea and around the world (Foley 1986:42-43; Franklin 1992:1), they are not extensive in Edolo culture outside of this pandanus language. The primary use of this special language for the Edolo is while hunting in certain areas of the bush. It seems to have some type of a supernatural function as well as its use to conceal the intentions of the hunting party from their intended prey. It

²Cognate status was determined "by the inspection method, using the criterion of 50% phonetic similarity" (Purnell, 1988:14).

is also used at times to conceal information from small children who do not know the vocabulary of the special language. While my knowledge in this area is limited, my impression is that there are no phonological or grammatical differences from the main language and that it is mainly a matter of substitution of lexical items. The lexical items are sometimes taken from the main language and given new meanings and are sometimes specific to the special language, or at least of a derivation I have not yet determined.

1.3 History

The initial contact of the Edolo people with the outside world was in the 1930's when two different Australian government patrols came through the general area. For thirty years after that time outside influence was very limited. Steel tools were introduced around 1955. There are still some of the older men who know how to haft the old stone ax heads. Outside influence increased in the 1960's with renewed government patrols beginning in 1964. Mission outreach work was begun in the late 1960's by Huli pastors under Unevangelized Fields Mission (UFM, now Asia Pacific Christian Mission, APCM). For a more complete history of contact and the source of dates used here see Kelly 1977:7-31 (see also Kelly 1993:27-51 among others).

Anthropological fieldwork was done in the late 60's by Raymond C. Kelly as part of his Doctoral studies at the University of Michigan. In addition to other publications, two books on Edolo culture were published by Dr. Kelly (Kelly 1977, 1993).³ Dr. Kelly, along with his wife, lived with basically the same village group that we do, although the village has been moved a short distance since then. Kelly's wife, Mary Pfender, "transcribed and translated several hundred pages of myths and stories" (Kelly 1977:xiv). Although I did get a brief look at some of her materials they were not available for use in

³Kelly uses the spelling Etoro.

the present study. In 1979-80 Peter Dwyer lived in the Edolo village of Bobole and did ethnozoological field research that has resulted in several publications including Dwyer 1983. I do not know whether Dwyer did any linguistic work other than that incidental to his main area of research.⁴

No extensive linguist work has been done on the Edolo language. In addition to the previously mentioned work by Ray Kelly, Mary Pfender, and Peter Dwyer a sociolinguistic survey was conducted in 1988 by Andy Barlow and Greg Purnell of the Summer Institute of Linguistics (Purnell 1988). Work was also done in 1989 by Murray and Joan Rule of APCM. The Rules' unpublished work included a brief statement of the phonology, a proposed orthography and about a page and a half on the grammar.

1.4 The corpus

The corpus of data upon which this analysis is based consists of three parts. The first is a text database, as summarized in Table 1, that gives the text names used in the database and the number of sentences in each. In the text database there are twenty-eight interlinearized texts of various genres. Their lengths vary from three sentences to one hundred and four sentences. There are a total of 658 sentences in 28 texts, most of them consisting of several clauses each. Also recorded in the text database are 253 elicited sentences, most consisting of only one clause each, and 25 non-elicited sentences, that is, sentences heard in normal conversation. These latter are labeled Sentconv in Table 1. The elicited sentences were gathered by a number of different means in the process of language learning; some through translation but most through interaction and observation in the vernacular. As indicated in Table 1, some of the texts are transcribed from audio tape recordings and some were collected in written form. Texts not designated as to genre are of a type indicated by the text name, i.e. letter (correspondence), prayer, or song.

⁴Dwyer uses the spelling Etolo.

Some of the texts listed as letters are correspondence that I have received since leaving Papua New Guinea. Texts listed as narrative are accounts of historical events. Those listed as traditional may still refer to historical events, at least originally, but also include some type of events beyond that which is normally expected in the natural world, often having to do with the origin of geographical features. Reference is made later in this thesis to this part of the corpus as the "text database".

Table 1.--Text database summary

Text name	# sent.	Form	Genre	Text name	# sent.	Form	Genre
Bluff	34	R	T	Letter3	3	W	
Bosavi	40	W	N	Letter4	39	W	
Doctor	24	W	N	Letter5	11	W	
Duluba	46	W,R	N	Letter6	10	W	
Fishnarr	19	R	N	Nage	21	W	T
Fishproc	26	R	P	Payback	43	W	N
Garden	8	R	P	Prayer1	9	R	
Hamaga	31	W	T	Prayer2	10	W	
House	19	R	N	Return	13	W	N
Ilua	102	R	T	Revenge	25	W	N
Leech2	24	W	T	Sago	14	R	P
Leech	13	W	T	Snake	30	W	T
Letter1	4	W		Song1	7	R	
Letter2	11	W		Wida	22	W	N
Sentence	253			Sentconv	25		
Text total	658			Text database total	936		

Key- W: written text, R: audio recorded text, T: traditional, N: narrative, P: procedural

The second part of the corpus is a text of the New Testament Gospel of Mark in Edolo. This text is a rough draft translated by Duluba Ibo, an Edolo man, who used as his source translations available in other languages spoken locally. The primary source was

the New Testament in Huli , a local area trade language spoken by most Edolo men; the other was the Nupela Testamen, the New Testament in Tok Pisin, one of the national languages of Papua New Guinea. The Mark text was translated in 1988 and 1989, prior to the beginning of our work with the Edolo people. A rough draft of the Gospel of Matthew was also translated during the same time period by Efala Babe, but that text has not been included in the corpus, primarily because only part of it has been keyboarded to date. When a distinction in the corpus is made hereafter, reference is made to this second part as "the Mark text". Primary significance in analyzing the language has been given to the text database. The translated Mark text has been used in a secondary manner, mostly for evaluation of hypotheses suggested elsewhere, both of structure and meaning.

The third part of the corpus consists of the lexicon and some paradigms. The lexicon has been compiled from language learning activities, the interlinearized text database, and partial analysis of the Mark text. The main lexicon, consisting of individual root morphemes, contains 1,454 entries. In addition, there is a suffix lexicon with 101 entries and a prefix lexicon of five entries. Homophonous morphemes are counted as separate entries in the lexicon and are counted separately in the totals given here. In addition there is a lexicon of 115 proper nouns, containing the names of people and places.

Most of my language learning has been done through informal interaction in day to day life with the Edolo people rather than regular structured language learning sessions. Duluba Ibo has, nevertheless, been my main language helper in both formal and informal settings. In addition to my good friend Duluba, Ilawi Aмоса has been helpful in language learning and, along with Duluba, in countless other ways as well. Language learning, in the initial stages, was carried out using Tok Pisin (Melanesian Pidgin). Tok Pisin is not widely spoken among the Edolo, but both Duluba and Ilawi are speakers. A little more than half way through our time of fieldwork, in September 1992, I changed my approach to language learning. I stopped using Pidgin and asked the Edolo people not to use it in

speaking with me. They responded well to my request, and the last third of our fieldwork was done largely monolingually.

1.5 Overview of the thesis

The outline for this thesis has been taken from a proposed Papuan Grammar Essentials Outline of the Papua New Guinea branch of the Summer Institute of Linguistics, with major abbreviations, particularly of higher level description.

Chapter 2, following this introductory chapter, gives a brief description of the phonology at its present state of analysis. Chapter 3, which constitutes the bulk of the thesis, gives a word level description of both open and closed classes. The description in Chapter 3 also includes an accounting of the morphology associated with each of the classes considered. Chapter 4 examines the phrase structure of Edolo and, in keeping with the GB paradigm, includes basic clause structure in the same discussion. Further aspects of clause structure are addressed in Chapter 5. In the final chapter, Chapter 6, discourse genre distinctions and participant reference are examined in looking at discourse level grammar. Two appendices are included with interlinearized vernacular texts. Appendix A contains a procedural text and Appendix B contains a traditional narrative text.

All examples used in the thesis are given in the proposed Edolo orthography. The primary orthographic convention that the reader will want to be aware of is the use of the dieresis to mark nasalization of vowels. As will be noted again later, synonymy of glosses is not meant to imply synonymy of vernacular lexical items.

2

PHONOLOGY

2.1 Introduction

As mentioned in § 1.3, a brief phonology statement was done in 1989 by Murray and Joan Rule, linguists with Asia Pacific Christian Mission. Their work was based on one week of data gathering with six Edolo men: Efala Babe, Sogola Dabaya, Hamaga Dabaya, Säwä Amosa and Haimago Biawe from Eastern Edolo villages, and Siale Yabua from Dodomona, a Western Edolo village. My language learning subsequent to the work done by the Rules has shown their work to be quite accurate and much of their analysis is reflected here. I have not yet done systematic phonological analysis of the language so limit my comments here to observations based on the current state of analysis.

It is my intention to present here the phonemic system and the orthography with some statements about the allophonic variation. It is not my intention to justify the phonemic decisions although comments will be made on some of them. I make also some statistical observations regarding phoneme frequency. I include also a section regarding syllable structure, one aspect of Edolo phonology that is not very complex. Following that there are some very general and tentative comments regarding stress in the language, and finally, for comparative purposes, a section giving the orthographies of some other area languages.

2.2 Phonemes and graphemes

2.2.1 Consonants

The consonant inventory consists of six voiceless phonemes (three oral stops and three fricatives), and four voiced phonemes (one lateral, one nasal stop and two glides). To state it more definitively the phonemes are /p t k f s h l m j w/. The absence of an

alveolar nasal stop phoneme, /n/, with the presence of the bilabial phoneme, /m/, makes the system quite rare according to Ferguson's assumption II (1966:56), which predicts that in a language with only one "primary nasal consonant" it will be /n/. He goes on to say, however, that "in the rare instances where a language has only /m/, there seems always to be an apical [n] as an allophone of something else" which accurately describes the situation in Edolo where [n] is analyzed as an allophone of /l/. Its remarkability may also be mitigated by the existence of /n/ as a phoneme in Western Edolo. At least one other Bosavi family language, Samo (Shaw 1977:102), also lacks an alveolar nasal stop phoneme, and has [n] as an allophone of /l/.

2.2.1.1 Consonant phonemes

Table 2 gives a phoneme chart of the consonants.

Table 2.--Edolo consonant phonemes

	Bilabial	Labiodental	Alveolar	Palatal	Velar	Glottal
Plosive	p		t		k	
Fricative		f	s			h
Lateral				l		
Nasal	m					
Approximant	w			j	(w)	

The oral stops /p t k/ are unaspirated stops. The point of articulation of the alveolar stop, /t/, is well forward on the alveolar ridge with the tongue making some contact with the back of the teeth, a fronted alveolar stop similar to that of Spanish. The point of articulation of the velar stop is farther back on the velum than the corresponding phoneme in American English. It does seem to vary in point of articulation depending on the

relative backness of the following vowel, as in English, but is still relatively farther back. The lateral phoneme is an alveolar lateral flap, /l/.

2.2.1.2 Consonant allophones

The oral stops have voiced and voiceless allophones, both unaspirated. The voiceless allophones occur word-initially, but a predictable conditioning environment for the voiced allophone has not been determined to date. They appear to be in free variation word-medially. The velar stop can also surface as a voiced velar fricative, particularly in the environment of back vowels. Again a precise conditioning environment is not apparent.

The most significant allophonic variation in the consonants is in the several allophones of the lateral segment, /l/, which is primarily an alveolar lateral flap, [l], but may also become a retroflexed alveolar lateral flap, [ɭ], a nasalized alveolar lateral flap, [l̃], and an alveolar nasal stop, [n]. Rule gives the conditioning environment for the retroflexion as preceding rounded vowels (1989:5). I have not found it any easier to predict the environment of this allophone than to properly pronounce it. The nasalized allophone of the lateral occurs very consistently preceding a nasalized vowel, and the nasal stop occurs word-initially. The allophonic relationship of [n] to /l/ is clearly seen in the reduplicated form of the verb *nege* 'give', where the prefixed reduplication repeats the first CV sequence giving *ne-lege* 'DUP-give', with the formerly word-initial [n] of the root becoming [l]. I note the possibility that the phoneme here may actually be /n/ rather than /l/. This possibility I nevertheless regard as doubtful, but provide neither supporting evidence nor argumentation.

While the phonemic status of the glides, /j w/, is certainly an area where it is difficult to be definitive, there are some pertinent factors relating to considering them as phonemes here. Aside from the fact that their inclusion in the orthography can simplify

reading without making any claims as to their phonemic status, they cannot be dismissed simply as orthographic tools in Edolo. The labiovelar glide /w/ has an allophone that Rule (1989:4) describes as a "voiced slightly rounded bilabial fricative", [β]. This strikes my ear more as a voiced labiodental fricative and, although Rule may well prove to be right, I refer to the allophone here as [v]. There are certain lexical items in which the phoneme /w/ seems to vary freely between [w] and [v]. These occur both word-initially and medially as in /wita/ [wida~vida] 'cassowary' and /hawio/ [hawio~havio] 'good-bye'. There are also words like /maui/ [mawio] 'gourd' that do not seem to evidence the same allophonic variation, suggesting the labiovelar glide, /w/, as a separate phoneme from the vowel /u/.

The palatal glide /j/ provides some additional challenges of analysis. Rule (1989:6) makes the following observation:

Note: In some medial positions where a phonetic [y] has been recorded, it will pattern in the ears and minds of local speakers as an "e", not a "y", e.g. "younger brother", originally written [nayo], patterns to all the local literate men as /naeo/, and "native fig tree", originally written [a'fayō] patterns as /afaeō/. However, writers are agreed on /ayo/, and on /gūlaiä/ above, thus giving three patterns for the interpretation of what sounds like a medial [y]. [emphasis and formalism his-JG]

In my investigations into similar sequences the speakers differentiate the pronunciation of the spellings <aea aia aya> and <aiya>. I have been able to hear clearly the distinction between those sequences with a <y> and those without, suggesting, in agreement with Rule, the existence of the palatal glide, /j/, as a separate phoneme from the vowel /i/.

2.2.1.3 Consonant graphemes

Rule (1989:1) proposed consonant graphemes <b d g f s h l m w y> for phonemes /p t k f s h l m w y/, respectively. In addition the grapheme <n> is included to represent the Western phoneme /n/ and the Eastern word-initial allophone of /l/, [n]. The selection of the graphemes <b d g> to represent the voiceless phonemes /p t k/ and their voiced allo-

phones [b d g] is a concession to the Huli orthography, which uses the same graphemes to represent the same pairs of allophones and <p t k> to represent Huli phonemes / p^h t^h k^h/. Rule (personal communication, June 1993) indicates that this choice was made "seeing they were so closely linked with the Huli churches and had done their Bible training with them."

2.2.2 Vowels

The Edolo language has five oral vowels, /i e a o u/, with phonemic nasalized counterparts to each of the oral vowels. This is consistent with Ferguson's assumption XI (1966:58) in that the number of nasal vowels is not greater than the number of oral vowels.

2.2.2.1 Vowel phonemes

Table 3 gives a phoneme chart of the vowels.

Table 3.--Edolo vowel phonemes

	front	Central	back
High	i ñ		u ù
Mid	e ě		o õ
Low		a ǎ	

2.2.2.2 Vowel allophones

The front mid vowel, /e/, is actually phonetically closer to [ɛ] except word-finally. There is a fairly widespread process of nasal spreading that awaits further analysis before it can be explained thoroughly. The nasalization on vowels spreads progressively to vowels and laterals but is blocked by certain consonants. It appears to spread across

morpheme boundaries but be stopped from affecting certain bound morphemes that may prove to be clitics.

2.2.2.3 Vowel graphemes

Graphemes for the oral vowels are <i e a o u>. The dieresis is used to mark nasalization in the nasal vowel graphemes, <ī ē ä ö ü>. From my observation there has been mixed success in getting indigenous writers to mark the nasalization on vowels. This may be due to a number of causes including the Huli pattern of only marking nasalization on minimal pairs. Nasalized vowels are fairly common in area languages and several different strategies are used for marking them orthographically. Huli uses underlining, Samo uses an <n> following the nasalized vowel, and several languages do not mark nasalized vowels even though they appear to be phonemic. For a comparison of other area language orthographies see § 2.6.

2.3 Phoneme frequencies

Table 4 gives the relative frequencies of each of the phonemes of Edolo using the orthographic symbol for each. Figures are given for the lexicon and for text data, which includes both the texts database and the Mark text.

An even distribution of each of the twenty phonemes would give an expected 5% frequency for each one. Both of the graphemes <l> and <n> are included together as belonging to one phoneme, /l/, which is the most frequently occurring consonant. The most frequently occurring character is the vowel /a/. Ferguson's assumption XII states that the frequency of nasal vowels is expected to be less than that of the oral vowels (1966:58). It can be seen from Table 4 that this expectation is borne out in the Edolo data analyzed here. The ratio of oral to nasal vowels is 3:1 at its lowest (a/ä in texts) and 16.7:1 at its highest (u/ü in texts). The overall ratio of oral to nasal vowels is 4.6:1 in the

lexicon and 5.3:1 in texts. These ratios are much lower than the one example Ferguson cites of an oral-nasal vowel ratio of 50:1 for Bengali (1966:58).

Table 4.--Phoneme frequencies

Lexicon 7,531 characters		Texts 125,824 characters	
grapheme	%	grapheme	%
<i>a</i>	14.8%	<i>a</i>	16.2%
<i>l+n</i>	9.3%	<i>l+n</i>	12.9%
<i>i</i>	9.0%	<i>e</i>	10.0%
<i>o</i>	8.7%	<i>i</i>	9.7%
<i>g</i>	8.4%	<i>o</i>	7.4%
<i>e</i>	7.0%	<i>m</i>	5.9%
<i>s</i>	6.3%	<i>ä</i>	5.7%
<i>d</i>	5.7%	<i>d</i>	5.6%
<i>b</i>	5.3%	<i>g</i>	5.0%
<i>u</i>	5.2%	<i>s</i>	4.7%
<i>m</i>	4.0%	<i>b</i>	3.1%
<i>ä</i>	3.3%	<i>u</i>	3.1%
<i>f</i>	2.5%	<i>h</i>	2.7%
<i>h</i>	2.1%	<i>ë</i>	2.1%
<i>ë</i>	2.0%	<i>ö</i>	2.0%
<i>ö</i>	2.0%	<i>f</i>	1.5%
<i>ï</i>	1.7%	<i>ï</i>	0.9%
<i>w</i>	1.2%	<i>w</i>	0.7%
<i>y</i>	0.8%	<i>y</i>	0.7%
<i>ü</i>	0.7%	<i>ü</i>	0.2%

2.4 Syllable structure

Edolo syllable structure allows no closed syllables and no consonant clusters so the syllable patterns are accordingly limited. Observed syllable patterns are CV, V, CVV, and VV. Following the typological system of Clements and Keyser (1983:28-30), Edolo can be classified as a Type II language, that is, one having core syllable types CV and V. The acceptability of vowel clusters can be further represented as CV² and V², indicating that V can be a sequence of one or two vowels. Tautosyllabic VV sequences consist of possible geminate vowels or diphthongs filling a branching nucleus slot. There are heterosyllabic VV sequences in addition to the geminate and diphthong sequences mentioned above.

Figure 3 gives a syllable template representing Edolo phonotactics. The relative sonority of consonants is not of concern, since no consonants are clustered and since O can be filled by any consonant. Considering the sonority index of the vowels as a > e,o > i,u (Selkirk 1984:12) the normal pattern for diphthongs is N₁ > N₂.

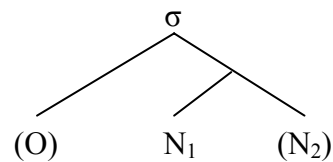


Figure 3. Syllable template

Acceptable syllable types are exemplified as follows:

V:	<i>a.ba</i>	'sibling'	<i>i</i>	'tree'
VV:	<i>oe.a.bo</i>	'lake'	<i>ae.a.bu.lo</i>	'tree (specific)'
CV:	<i>fo</i>	'wind'	<i>sa.ge</i>	'grasshopper'
CVV:	<i>dao</i>	'dust'	<i>hae.a</i>	'bird'

The status of the glides in Edolo has not been clearly established to date. Whether they can, as consonants, enter into a CC cluster, which is otherwise disallowed, or can, as vowels, be part of a branching nucleus needs further study.

2.5 Stress

Stress does not appear to fit into any regular pattern. While some generalizations can be stated as a preference toward penultimate stress, I have not been able to predict stress and so find myself in agreement with Rule's statement that "stress is unpredictable and in that sense therefore phonemic" (Rule 1989:2). No word pairs have been found to date that are differentiated only by stress, however. In two syllable words stress nearly always occurs on the penult. In three syllable words it seems to vary between being on the antepenult and the penult with penultimate stress being more common. Four syllable words vary with the stress most often being on the penult but occurring at times on either the antepenultimate or the initial syllable. Verbs in particular can become quite long, up to ten or eleven syllables, and I am unable to state any generalizations about stress in these longer instances except to say that the stressed syllable changes as more suffixes are added to a given root and that there are non-primary stresses as well.

Examples of contrast in three and four syllable words are:

<i>he'dabi</i>	'good'	<i>'abodo</i>	'which'
<i>ge'sami</i>	'spirit'	<i>'abidi</i>	'where'
<i>na'fade</i>	'bad'	<i>'nagobe</i>	'arrow'
<i>ede'fade</i>	'big'	<i>i'loloba</i>	'jungle'
<i>misi'galë</i>	'mucus'	<i>a'dumili</i>	'ant sp.'
<i>mumu'sogi</i>	'inside'	<i>fa'yedilo</i>	'snake sp.'
<i>sulu'bada</i>	'all'	<i>'nalabali</i>	'watercress'

While stress may be phonemic in that it is unpredictable, I have not found any evidence of phonemic tone in Edolo. Huli does have minimal tone pairs, including the first and second person singular pronouns. This was pointed out to me by an Edolo man, Duluba Ibo, seemingly with the idea that this was a remarkable phenomenon. When I asked if Edolo had any words like that, he said there were none. He did mention the word *ayo* which has both the meanings 'yesterday' and 'tomorrow' but said they were the same word. In fact *ayo* does not even seem to have two different meanings but rather to mean 'one day removed'. This is followed through in terms for two, three, and four days removed, with the direction of removal from the present determined by the tense of the main verb.

2.6 Other area orthographies

Table 5 gives the phonemic systems and orthographies of four Bosavi family languages and Huli, an Engan language spoken by most Edolo men.

Table 5.--Area orthographies

Edolo
/p t k f s h l m w j i ī e ē α ã o õ u ũ/ <b d g f s h l n m w y i ī e ē a ã o õ u ũ>
Kaluli (Andy Grosh, personal communication, 1992)
/b d g t ^h k ^h f s h l m n w j i ī e ē æ ã α ã ɔ ɔ̃ o õ u ũ/ <b d g t k f s h l m n w y i ī e ē a: a: a a o: o: o o u u>
Kasua (Tommy Logan, personal communication, 1992)
/p t k f s h l m n w j i e æ α ɔ o u/ <p t k f s h l m n w y i e a: a o: o u>
Samo (Shaw and Shaw 1977)
/b d g t k f s h l m w j i ī e ē æ ã ɔ ɔ̃ o õ u ũ/ <b d g t k f s h l m w y i i n e e n a a n o o n o u o u n u u n>
Huli (Rule, undated manuscript)
/b d g p ^h t ^h k ^h m ^b n ^d ŋ g h l r m n w j i ī e ē α ã o õ u ũ/ <b d g p t s k m b n d n g h l r m n w y i ī e ē a ã o õ u ũ>

A brief phonology statement by Murray Rule for Kasua does not mention nasalized vowels, but they do exist according to Logan (personal communication, 1992). Shaw (1986:48-9) considers nasalized vowels to be a feature of all the Bosavi family languages. No method of marking nasalization in Kasua has been established. The Edolo, Kaluli, and Kasua information should all be considered tentative, as well as the family-wide claims of Shaw.

WORD LEVEL

3.1 Introduction

In this rather extensive section I consider the open and closed word classes and most of the morphology associated with each class. The relative size of this section is probably due to a couple of different factors; one, the morphological complexity of the language, and two, the current state of analysis and language learning.

Let it be noted here that, in the discussion that follows, identical glosses are not meant to imply synonymy. In most cases where glosses are identical, it is because the precise distinction between terms has not been determined and it would be arbitrary to assign distinct glosses. There may be some cases where a distinction is possible but brevity makes it expedient to assign non-distinct glosses.

3.2 Open word classes

Considered here are the noun, verb, adjective, and adverb word classes. As will be noted below, there is some question whether the latter two actually constitute open classes.

3.2.1 Nouns

The class of nouns, expressions for real-world referents semantically classified as persons, places, or things, can also be distinguished by grammatical properties. Nouns in Edolo do not occur clause-finally, they can fill the syntactic function of arguments or heads of arguments, and they can be marked for case and what may be definiteness or topicality. Nouns are not specified for number or gender with the exception that pronominal forms distinguish singular, dual, and plural number (see § 3.3.1.1). Number,

in the noun phrase, is marked by a quantifier, but no agreement is marked on the noun. Number agreement on the verb is limited to plural number marking on motion verbs and the existential verbs.

There are four lexical items that seem, at first glance at least, to be marked for number, or perhaps a 'collective' sense. They all end in *-sa* and are similar in phonological shape to semantically related, non-plural forms. The forms are as follows:

<i>emalösa</i>	'litter'	<i>malisa</i>	'adolescent males'
<i>malësa</i>	'children'	<i>dolisa</i>	'adolescent females'

For the first three a relationship to *malö* 'child' or *emalö* 'nephew/niece' might be suspected. For the last, *dolisa*, a relationship to *dolö* 'male' might be suspected, but obviously the gender is incorrect to relate these two. The first, *emalösa*, is used of the offspring of an animal, like a dog or a pig, and I do not know if it is applicable to a single offspring. All of the others, although they seem to be used primarily in a collective sense, referring to a group, can also occur with a quantifier as in *malësa ohodoa* 'children three' [Snake 006] or *dolisa afüdea* 'adolescent.female one-ERG' [Mark 14:66] where the referent is clearly singular. It seems possible that these terms may have a default collective sense that may be changed by the context. At the same time *malö* 'child' seems to have a default singular sense, also subject to change by context. There does not appear to be any equivalent of *dolisa* or *malisa*, that could be said to have a default singular sense.

Nouns in Edolo are considered to be equivalent to the R-expressions of GB. They conform to Principle C of the Binding theory, being free everywhere, that is, they are not required to have an antecedent.

3.2.1.1 Noun classes

There is no overt system of classifiers on nouns in Edolo. Nouns, like pronouns, do not have gender categories. This is consistent with Greenberg's universal 43 (1966: 96),

"If a language has gender categories in the noun, it has gender categories in the pronouns." There are no gender categories in the pronouns so none are expected in the nouns ($p \rightarrow q$, $\sim q$, therefore $\sim p$).

There is, however, some noun classification in Edolo consisting of what Foley describes as a "covert nominal classification system, in which nouns are placed into groups according to the different verb-roots with which they express the concept of existence" (1986:88). This amounts basically to an animacy distinction in that animate beings are said to exist using a form of the verb 'sit', *salea*, for example, while inanimate objects are said to exist using a form of the verb 'lie', *dialea*, for example. See also § 3.3.6 on these existential verbs. Some examples of animate nouns that use a form of the verb 'sit' are:

<i>abaso</i>	'catfish'	<i>malö</i>	'child'	<i>öhöëö</i>	'game animal'
<i>baiyaga</i>	'cuscus'	<i>mugabe</i>	'spirit'	<i>sugua</i>	'pig'
<i>dolö</i>	'man'	<i>nado</i>	'my father'	<i>udia</i>	'woman'
<i>haea</i>	'bird'	<i>nuba</i>	'snake'	<i>ügülö</i>	'dog'

Some examples of inanimate nouns that use a form of the verb 'lie' are:

<i>falaga</i>	'bean'	<i>igi</i>	'stone'	<i>nulo</i>	'fire(wood)'
<i>gau</i>	'hill'	<i>molö</i>	'food'	<i>ödä</i>	'water'
<i>gisi</i>	'grass'	<i>mösö</i>	'house'	<i>ulumabi</i>	'taro'
<i>helebe</i>	'bushknife'	<i>nagobe</i>	'arrow'	<i>wahalo</i>	'sago palm'

There does not appear to be a clear tendency to use 'sit' for women and 'stand' for men, as is common in the neighboring Engan languages (Foley 1986:88). The animacy classification should only be regarded as a default verb selection since other postural verbs can be used when specific postures are expressed.

3.2.1.2 Case

While some nominal relations are expressed in Edolo by means of adpositions (see § 3.3.3) the usual way of expressing them is through case endings. This is apparently

typical of Papuan languages. Foley (1986:93) says "Instead of postpositions for these [the more abstract semantic relations of instrument or beneficiary], Papuan languages use bound case affixes". The presence of a case system is also expected based on Greenberg's universal 41, which says that a verb-final language "almost always has a case system" (1966:96). The case markings seem to be clitics. They are phonologically bound, primarily short, unstressed particles of one or two segments. In addition, they apparently attach at the phrase level, attaching to the last word in the noun phrase whether a noun, adjective, determiner, relative pronoun, or quantifier as in *dolö afüdea (afüde-**ea**)* 'man one-ERG'. The case endings can attach following at least one other morpheme that is also considered a clitic, the conjoining morpheme, *-le* (see § 3.3.5.1). The case endings as they are presently understood are given in Table 6.

Table 6.--Case markers

form	core relation	function/equivalent
<i>-ea</i>	ergative	trans subj
<i>-∅</i>	absolutive	intrans subj/trans obj
<i>-ma</i>	indirect object	to/from/in place of
peripheral local relation		
<i>-a</i>	allative (locative)	'to (at)'
<i>-la</i>	ablative	'from'
<i>-gi</i>	locative (allative)	'at (to)'
peripheral oblique relation		
<i>-bälä</i>	accompaniment	'with'
<i>-ea</i>	instrumental	'with'
<i>-gali</i>	dative	'to, for'
<i>-ïe</i>	genitive (benefactive)	'of (for)'
<i>-la</i>	comitative	'together'
<i>-lali</i>	comitative	'together'

3.2.1.2.1 Core case markers

Case marking for the core nominals, subject and object, follows an ergative/absolutive pattern (see § 5.3). The subject of an intransitive verb and the object of a transitive verb are treated the same way, marked with absolutive case, and the subject of a transitive verb is distinguished from them, marked with ergative case. The ergative case ending in Edolo is *-ea* as in *Dulu-ea sugua nufi* 'Dulu-ERG pig kill-PAST', or 'Dulu killed a pig'. Following a front vowel the first vowel of the case marker is deleted as in *Dade-a adu asi* 'Dade-ERG string bag weave-PAST'.

Absolutive case has a zero marking. This is consistent with Dixon's claim that "absolutive is always the unmarked term in an ergative/absolutive opposition" (1979:59), and with Greenberg's universal 38, which says that if there is a case marking that is always zero at least one of its meanings will be subject of the intransitive verb. Showing the zero morphemes, this is demonstrated in *Säwä- \emptyset misi* 'Säwä-ABS come-PAST' and, repeating the example from above, *Duluea sugua- \emptyset nufi* 'Dulu-ERG pig-ABS kill-PAST'.

The application of the ergative-absolutive system described here follows an interesting pattern in its application to chained clauses. In a sequence of verbs the subject is marked for the transitivity of the first verb in the chain, regardless of the transitivity of the final verb as seen in examples (1) and (2) (see also § 5.3).

- (1) *nili- \emptyset mala molö mai*
1p-ABS come-SIM food eat-PAST

Coming we ate food.

[Sentence 243]

- (2) *eedo amea gähöö gugi gaula fedei*
father that-ERG pandanus mixture hold-SIM ascend-PAST

That father, carrying pandanus mix, went up.

[Bluff 029]

The specific categorization of the case markers is a bit more tenuous beyond those for ergative and absolutive case. There seems to be one more case marker that might best be considered as marking a core nominal relation. In discussing options for marking a second object with double object verbs Andrews says that one option "frequently found in languages that code grammatical functions primarily by NP-marking, is to use an additional core grammatical relation, 'indirect object'" (1985:1:126). The suffix *-ma* seems to mark a number of different semantic relations and is analyzed here as an indirect object marker. It is used primarily with animate nouns. Its most frequent use is with the verb *sä* 'say' where it normally indicates the person being spoken to. There is a specialized situation with the verb *sä* as in *gai-ma ufudula sämalo* 'banana-IO banana.SL-COMP say-FUT.IMP' [Ilua 090] or 'Instead of banana say *ufudu*' where instruction in the special language (SL) or pandanus language (see § 1.2.2) is being given and direction is given to use the word *ufudu* to replace the standard language word for 'banana', *gai*. Other double object verbs with which the IO marker is used are *naba* 'ask', *ïä* 'give', and *nea* 'get'. With *naba* the sense is similar to 'say' in marking the person addressed. With *ïä* 'give' the IO is the recipient, English equivalent 'to', whereas with *nea* 'get' the IO is the source, English equivalent 'from'. This is seen in the two clauses *Duluba-ma ï* 'Duluba-IO give-PAST', or '(I) gave (it) to Duluba', and *Duluba-ma ni* 'Duluba-IO get-PAST', or '(I) got (it) from Duluba' [Sentence 241]. In these two clauses, where both subject and direct object are non-overt, the IO marker is used for Recipient in the first clause and Source in the second. The marker *-ma* is also used in some instances with what would normally be an intransitive verb. Both of the verbs *obeägi*, 'be happy' or 'rejoice', and *nesege*, 'be thankful', primarily appear with a subject marked with ergative case and an object marked as indirect object as in *na di-ma obeägisa* '1s-ERG 2s-IO be happy-ASP', or 'I am happy with you' [Letter4 004]. Andrews (1985:1:126-7) cites Warlpiri as having an indirect object marker that functions very similarly to the IO marker of Edolo.

3.2.1.2.2 Peripheral case markers

The remainder of the case markers are considered to be marking peripheral case relations, although the distinction is not always clear cut. I will consider first the local cases; allative, locative and ablative. The marker *-a* seems to have as its main function marking allative case, equivalent to English 'to'. At times it is difficult to distinguish it from a simple locative sense and it appears there may be some overlap with the locative *-gi*. The allative is used frequently with *beselagala* 'arrive', and motion verbs, as exemplified in *mösö-a beselagalalahilä* 'house-ALL arrive-SEQ', or 'after arriving at the house' [Duluba 007a]. Both the allative and the locative can be used in combination with a postposition as in the postpositional phrases *umi-a dala* 'level.place-ALL straight.to', or 'straight to a level place' [Bosavi 025], and *ödä Giwa-gi dala* 'water Giwa-LOC straight.to', or 'straight to the Giwa River' [Bosavi 006].

The locative case marker, *-gi*, is at times difficult to distinguish in function from the allative, *-a*, as already mentioned. Neither case is normally used with proper names of locations, with the exception that *-gi* is used with river names. There is no apparent distinction in verbal collocation or in phonological environment. The locative *-gi* is also used with the first seven numerals to designate the days of the week, with Monday being regarded as the first day, *afäde-gi* 'one-LOC'. The locative is also used for the months. The month of June can be expressed either with a number, *aube gafe-gi* 'moon six-LOC', or with a form of the month name borrowed from Tok Pisin, *aube Yuni-gi* 'moon June-LOC'. There are several expressions of location in relationship to a whole composed of a noun with locative case marking, such as; *bidi-gi* 'corner-LOC', *mumuso-gi* 'inside-LOC', *iso-gi* 'inside-LOC', *mogo-gi* 'middle-LOC', and *agesu-gi* 'edge-LOC'. Of the two words for inside, *mumuso* refers to something that is open inside, like a house, whereas *iso* refers to the inside of something relatively solid, like the organs inside the body or a sliver going inside the foot.

The ablative case marker, *-la*, is equivalent to English 'from' as in *di abidi-la maha* '2s where-ABL come-ASP', or 'Where are you coming from?'. The ablative can also be used in combination with the other local cases as in *hile mösö-a-la* 'EMPH-3s-GEN house-ALL-ABL', or 'from his own house' [Sentence 252], and *igi ödü-gi-la gaula misi* 'stone water-LOC-ABL carry-SIM come-PAST', or '(They) carried the stones from the river' [Sentconv 002].

Looking at the oblique cases, another morpheme of the same phonological shape as the ablative is the comitative marker *-la*, 'together'. It functions almost as a type of conjunction as in *öhöëö gogäëö amo-la giai* 'game.animal grub that-COMIT cook-PAST', or '(we) cooked game and grubs together' [Duluba 007b], and *ilia siabulu gai-la sagai* '3p-ERG sweet.potato banana-COMIT plant-PAST', or 'they planted sweet potatoes and bananas' [Sentence 123]. It is used with a series of nouns and is attached either to the proform *amo* which follows the series and summarizes the nouns as in the former example or directly to the last noun as in the latter.

Another comitative marker, *-lali*, appears, in addition to *-la*. No clear-cut distinction is apparent between the two morphemes and they can even appear together as in example (3) in which the postposed NP seems to be either a clarification or a self-correction. For a discussion of a possible relationship between these two comitative morphemes see § 3.2.1.2.3.

- (3) *idia-la* *efege-lali* *hilido* *fi* *wabu,* *eedo-la*
 wife-COMIT son-COMIT EMPH-3p-EXCL sit-PAST EV.hear father-COMIT

The wife and son together, they (plural) sat, with the father. [Bluff 004]

Accompaniment is marked with one of the longer case endings, *-bälä*. It seems to be distinguished from the forms that I have called 'comitative' in that comitative marks joint action while accompaniment indicates augmentation of a main actor. In example (4)

the meaning is similar to the English, having the sense 'You already plan to go and I now express my intention to accompany you'.

- (4) *ne di-bälä moholö*
1s 2s-ACCOMP go-FUT

I will go with you. [Sentence 027]

The accompaniment marking is also used in a rather unexpected way with the verbs for 'fear', 'be ashamed' and 'be alarmed', as in example (5).

- (5) *Uludi sugua-bälä bedäi*
Ruth pig-ACCOMP fear-PAST'

Ruth is afraid of the pig. [Sentence 103]

The instrumental marker is identical to the ergative marker, a situation that is apparently fairly common in ergative languages (Foley 1986:107; Anderson 1985:3:186). The analysis of this marker is fairly straightforward and is illustrated in example (6).

- (6) *na e baiala-ea nufi*
1s-ERG 3s club-INSTR hit-PAST

I hit him with a stick. [Sentence 165]

The dative case marker, *-gali*, is more restricted in its use than the IO marker, *-ma*. The IO marker can be used wherever *-gali* is used but not the other way around. The dative *-gali* primarily marks recipient as in example (7), although it can be used to mark benefactive as well.

- (7) *dia nili-gali munige faguloge i*
 2s-ERG 1p-DAT money-and clothing-and give-PAST

You gave money and clothing to us. [Letter5 002]

A very common and straightforward nominal case marking is the genitive, *-ie*, as in *malö-ie gabi* 'child-GEN ax'. It functions also as a benefactive marker in clauses like example (8).

- (8) *na nulo die (di-ie) habesa*
 1s-ERG fire(wood) 2s-BEN split-ASP

I am splitting firewood for you. [Sentence 174]

Reversing the order of the second and third elements to *na die nulo habesa* was also said to be okay, which would be the normal order for 'I am splitting **your** firewood'. It is not clear if use as a benefactive marker is a separate use from the genitive or merely an extension of the genitive sense of possession.

3.2.1.2.3 Kasus

A possible relationship between the case markings and postpositions can be pondered, borrowing Kasus as a cover term. Fillmore considers the two "realizations of the same underlying element, say K (for *Kasus*)" (1968:33). With the two different surface forms Kasus takes in Edolo and the inconsistencies between them, I consider here some possible explanations for the data. Some observations and proposed analyses appear in § 3.2.1.2 regarding case marking, and in § 3.3.3 regarding postpositions. For ease of observation and discussion I summarize in Table 7 the case markers from Table 6 and the postpositions from Table 24.

The length of three of the case endings, *-bälä*, *-gali*, and *-lali*, and their overlap in function with other case markers seem to be the primary obstructions to an elegant

analysis of Kasus in Edolo. Anderson (1985:3:186) makes the observation that cliticized case markers may be an intermediate stage in a diachronic process starting with adpositions and proceeding on to inflectional case endings. It seems that the data in Edolo may be evidence

Table 7.--Case and postposition summary

case	relation	case	relation	postposition	gloss
<i>-ea</i>	ergative	<i>-bälä</i>	accompaniment	<i>dabodo</i>	'on'
\emptyset	absolutive	<i>-ea</i>	instrumental	<i>daiya</i>	'on'
<i>-ma</i>	IO	<i>-gali</i>	dative	<i>dala</i>	'straight to'
<i>-a</i>	allative	<i>-ïe</i>	genitive	<i>dudua</i>	'beside'
<i>-la</i>	ablative	<i>-la</i>	comitative	<i>hawa</i>	'under'
<i>-gi</i>	locative	<i>-lali</i>	comitative		

that this process is presently in an intermediate stage. The similarity in form as well as function between the comitative morphemes, *-la* and *-lali*, suggest that the former may be a shortened form of the latter. Another apparent possibility is the derivation of *-lali* from *-la-ili* 'COMIT-3p', at least when there are three or more NPs involved. However, its use with only two NPs, where a dual number form, like **-lale* from **-la-ele* 'COMIT-3d' would be predicted, make a pronominal derivation seem unlikely. Considering the overlap in function, but not form, of *-gali* 'dative' with *-ma* 'IO', and of *-bälä* 'accompaniment' with *-la* 'comitative', and the marked difference in phonological shape from the other case endings (increased length) it might be that both *-gali* and *-bälä*, would be better analyzed as postpositions. Although there is very little history of writing in Edolo, both of these morphemes are written as separate words at some times and bound morphemes at others, without any apparent reason for the variation. The same is not true of *-lali*, however, which is always written as a bound word, and all three of them seem to

be more closely bound phonologically than the postpositions. As a result, I continue to analyze them as case marking surface forms of the underlying Kasus.

In applying Case Theory of GB, the case marking discussed here is considered to be a surface manifestation of the abstract case assigned by the case assigners, which appear to be finite INFL, V, P, and N. The selection of the proper surface manifestation would appear to be accomplished as a result of the requirements of the theta grids of the relevant heads.

3.2.1.3 Inalienable nouns (kin terms)

Kin terms in Edolo are marked in a way that is different from any other type of nouns. It is, in fact, quite exceptional for the whole language in that they exhibit prefixation. Table 8 gives each of the kin terms in their three different inflected forms. Glosses given do not elaborate on the complete usage of the kin terms since most are used reciprocally and many are also applied to wider categories not encompassed in the English equivalents given. The kin terms can also be preceded by a genitive pronoun as in *nīe nado* '1s-GEN 1-father' and *diē dieme* '2s-GEN 2-mother', or 'my father' and 'your mother', respectively. Forms given in Table 8 with a preceding question mark are forms whose phonological shape is uncertain. The connection between the possession marking on kin terms and the singular pronouns *ne* '1s' and *di* '2s' is quite transparent. The possession marking, however, marks person only, not number, in contrast to the pronouns, such that 'our mother' is *nilile neme* '1p-GEN 1-mother'. It is not as clear how the forms listed in the third column of Table 8 should be regarded. They could be regarded as being marked with the third person singular pronoun, *e*, that is not always evident in the surface form, or as being marked with a zero morpheme for third person possession, or as being unmarked for possession outside of first and second person. They do appear at times in what seem

to be unmarked, that is, unpossessed, environments such as *idiale egoale* 'wife-and husband-and'

Table 8.--Kin terms

1st person	2nd person	3rd person	Gloss	English approximation
<i>näwi</i>	<i>?diäwi</i>	<i>?äwi</i>	HOB/man'sYBW	'brother- or sister-in-law'
<i>nebabo</i>	<i>dibabo</i>	<i>ebabo</i>	MB	'uncle'
<i>nebase</i>	<i>dibase</i>	<i>ebase</i>	WZ/WB/ZH	'brother- or sister-in-law'
<i>nedaeo</i>	<i>didaeo</i>	<i>edaeo</i>	same name	
<i>nedo</i>	<i>dido</i>	<i>edo</i>	B (of man)	'brother'
<i>nado</i>	<i>diado</i>	<i>eedo</i>	F/FB	'father'
<i>nafege</i>	<i>diefege</i>	<i>efege</i>	S	'son'
<i>negoa</i>	<i>digoa</i>	<i>egoa</i>	H	'husband'
<i>nalifi</i>	<i>dielefi</i>	<i>elefi</i>	opposite sex sibling	'sister or brother'
<i>nelowo</i>	<i>dielowo</i>	<i>elowo</i>	O same sex sibling	'older brother or sister'
<i>nemalö</i>	<i>?diemalö</i>	<i>emalö</i>	ZS/ZD (of man)	'nephew or niece'
<i>neme</i>	<i>dieme</i>	<i>eme</i>	M	'mother'
<i>nesage</i>	<i>disage</i>	<i>esage</i>	HZ/woman's BW	'sister-in-law'
<i>nesago</i>	<i>disago</i>	<i>esago</i>	cross-cousin	'cousin'
<i>nesalo</i>	<i>?diesalo</i>	<i>esalo</i>	HYB/man's OBW	'brother- or sister-in-law'
<i>nesama</i>	<i>disama</i>	<i>esama</i>	Z (of woman)	'sister'
<i>nesöwa</i>	<i>disöwa</i>	<i>esöwa</i>	WF/WM/DH	'parent- or son-in-law'
<i>nawisi</i>	<i>diawisi</i>	<i>ewisi</i>	FZ/MBW	'aunt'
<i>naëö</i>	<i>diaëö</i>	<i>ëö</i>	Y same sex sibling	'younger brother or sister'
<i>nibia</i>	<i>dibia</i>	<i>ibia</i>	FBW/MZ	'aunt'
*	<i>didia</i>	<i>idia</i>	W	'wife'
<i>nidiwi</i>	<i>didiwi</i>	<i>idiwi</i>	D	'daughter'
<i>nauwa</i>	<i>diauwa</i>	<i>yauwa</i>	FF/MF	'grandfather'
<i>naye</i>	<i>diaye</i>	<i>yaye</i>	FM/MM	'grandmother'

B(rother), D(aughter), F(ather), H(usband), M(other), O(lder), S(on), W(ife), Y(ounger), Z(sister)

[Ilua 001] where it seems to be rather generic, 'a husband and wife'. It might be best to consider a combination of the last two possibilities where the kin terms carry a zero morpheme for third person possession when preceded by a third person genitive pronoun and carry no possession marking otherwise.

A few kin terms do not follow the normal pattern of marking possession. These kin terms do not have forms inflected for possession. The exceptional kin terms are as follows: *aba* 'sibling', *gahia* 'brother-in-law (WZH)', *gauwia* 'brother', *giäbu* 'uncle (MZH)', and *sauba* 'mother'. No explanation for these exceptions is presently known.

A common form of address to those who are parents uses a reduced form of the kin terms *eme* 'mother' and *eedo* 'father' suffixed to the name of one of their children. For example, the mother and father of *Domasi* are called *Domasi-me* and *Domasi-do*, respectively. The initial vowel(s) of the kin terms are dropped. It seems to be typically the name of the firstborn child that is used but there is some variation.

3.2.1.4 Nominalizing morphology

Nominalization seems to be the only productive derivational process in Edolo. One morpheme which functions in this way is *-i*, which is phonologically identical with the past tense marker (see § 3.2.2.2.2). It seems likely to be an extension of the application of past tense rather than a separate morpheme but I will gloss it here as nominalizer (NR). Some common forms in which the nominalizer appears are *saga-i* 'garden', from 'plant-NR', *nelege-i* 'possessions', from 'DUP-put-NR', and *hamo-i* 'work', from 'do-NR'.

The other nominalizing suffix, which is less productive, is the irrealis marker, *-lo*. This is seen in *gudu-lo* 'hammer' from *gudu* 'pound' (see also § 3.2.2.2.3).

3.2.2 Verbs

Understanding the verb system in Edolo has presented the greatest challenge of the whole process of language learning. The complexity of verbal morphology and the presence of the grammatical feature of clause chaining have made systematic analysis a very slow process. Foley (1986:175) describes clause-chaining as "probably the most distinctive feature of Papuan languages in general and, further, their most alien feature to speakers of the languages of Europe." In describing the language phylum in which Edolo is classified, Wurm (1982:80) says the "morphology of the great majority of the Trans-New Guinea Phylum languages shows a very high to extreme complexity." Although there is much about the verbs that remains to be understood there is a lot that can be described here with a degree of certainty. Certainly it is here, in considering the verbs, if nowhere else, that I have followed the advice of two linguists of vast experience:

One of the most crucial features of study which a young researcher must learn is not to let what he does not know prevent him from learning and presenting what he can know (Pike and Pike 1982:12).

3.2.2.1 Verb classes

Edolo verbs can be distinguished based on transitivity but there is no distinction in verbal morphology between these groups as a whole. Examples of intransitive, transitive, and ditransitive verbs are as follows:

<u>intransitive</u>	<u>transitive</u>	<u>ditransitive</u>
<i>bago</i> 'die'	<i>aba</i> 'chop'	<i>ïä</i> 'give'
<i>di</i> 'cry'	<i>hamo</i> 'do'	<i>nea</i> 'get'
<i>olo</i> 'be.sick'	<i>na</i> 'eat'	<i>nege</i> 'put'
<i>sigo</i> 'dance'	<i>nufu</i> 'hit'	<i>sogo</i> 'share'

Considering morphological distinction, a separate class could be posited consisting of part of the intransitive verbs, specifically the motion verbs, and the existential verbs. These existential verbs, also called postural verbs, 'sit', 'lie', and 'stand', and the motion

verbs constitute the only class of verbs on which subject agreement is marked. Although the marker is different, *-fia* for motion verbs and *-fola* for existential verbs, they both are first order suffixes and mark plural number of the subject. The plural number of *-fia* seems to agree with that of the pronouns, three or more, but the plural number of *-fola* is said to mark a larger number, more than three or four. Singular and dual number are unmarked, as is person. The verbs of this class are:

	existential			
<i>di</i>	'lie'	<i>sV</i>	'sit'	<i>nV</i> 'stand'
	motion			
<i>a</i>	'go'	<i>feda</i>	'ascend'	<i>diga</i> 'fall/descend'
<i>mV</i>	'come'	<i>neda</i>	'descend'	

The existential verb roots for 'sit' and 'stand' and the motion verb root for 'come' are given with an unspecified vowel, because there is quite a bit of variation in the root vowel of their inflected forms. The various root forms of 'sit' are *se*, *sa*, and *su*, of 'stand' are *ne* and *na*, and of 'come' are *mi*, *mo*, and *mu*.

Two verbs that are semantically related to the motion verbs, *obëge* 'return' and *bëge* 'follow', do not follow the pattern of being marked for subject agreement.

The existential verbs can also appear as verbal auxiliaries following a final verb. Although their function is not clear at this point they appear to mark some type of aspectual distinction, perhaps imperfective. The tie to aspectual meaning is apparently common since "it has been noted in many languages of the world that the extended aspect is generally associated with locative expressions, commonly verbs of location or posture" (Foley 1986:145). A listing of the different forms of these verbs is given in § 3.2.2.3.

There is one other distinction among the verbs by means of which they might be given a classification of sorts. There are three morphemes, *-sa*, *-sadu*, and *-salea*, that appear on verbs that each have allomorphs beginning with *h*. It is considered likely that the second and third are not monomorphemic but are based on the first. I limit my

discussion to the *sa~ha* alternation with the understanding that it applies to *sadu~hadu* and *salea~halea* as well. The meaning of the suffixes, apparently aspectual, is discussed in § 3.2.2.2.1. The alternation is conditioned by the final vowel of the verb root (all roots end in a vowel). Roots ending in *a* or *ä* take the form *-ha* while roots ending in any other vowel take the form *-sa*. This is apparently an alternation that is phonologically defined but not phonologically motivated. The sequence /asa/ exists elsewhere as in the verb root *asa* 'weave' (which takes the *-ha* ending). The final vowel of the verb root does not appear to designate any semantic or syntactic grouping of the verbs, and appears equally on transitive and intransitive verbs. In fact, the conditioning environment for the allomorphy is actually the vowel of the preceding morpheme, since other suffixes can come between the root and the *sa~ha* suffix and change the form that would otherwise be determined by the final vowel of the root. This is illustrated in the two forms, *gau-sa* 'hold-ASP' and *gawiada-ha* 'hold-up-ASP'.

There is no passive voice in Edolo, which is apparently the case with "many languages in New Guinea" (Keenan 1985:3:247), and perhaps all Papuan languages (Foley 1986:12).

Some possible theta grids, as posited in the Theta Theory of GB, are given in Figure 4, covering several different types of verbs, including the phonologically empty copula used in equative and descriptive clauses.

<i>na</i> , 'eat': V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">NP</td></tr> <tr><td style="padding: 2px 10px;">Agt</td><td style="padding: 2px 10px;">Thm</td></tr> </table>	<u>NP</u>	NP	Agt	Thm	<i>mV</i> , 'come': V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td></tr> <tr><td style="padding: 2px 10px;">Agt</td></tr> </table>	<u>NP</u>	Agt				
<u>NP</u>	NP												
Agt	Thm												
<u>NP</u>													
Agt													
<i>ii</i> , 'give': V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">NP</td><td style="padding: 2px 10px;">NP</td></tr> <tr><td style="padding: 2px 10px;">Agt</td><td style="padding: 2px 10px;">Ben</td><td style="padding: 2px 10px;">Thm</td></tr> </table>	<u>NP</u>	NP	NP	Agt	Ben	Thm	<i>sV</i> , 'sit': V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">(NP)</td></tr> <tr><td style="padding: 2px 10px;">Exp</td><td style="padding: 2px 10px;">Loc</td></tr> </table>	<u>NP</u>	(NP)	Exp	Loc
<u>NP</u>	NP	NP											
Agt	Ben	Thm											
<u>NP</u>	(NP)												
Exp	Loc												
\emptyset , 'BE': V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">Adj/NP</td></tr> <tr><td style="padding: 2px 10px;">Exp/?</td><td style="padding: 2px 10px;"></td></tr> </table>	<u>NP</u>	Adj/NP	Exp/?		<i>a</i> , 'go': V	<table border="1" style="border-collapse: collapse; text-align: center;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">(NP)</td></tr> <tr><td style="padding: 2px 10px;">Agt</td><td style="padding: 2px 10px;">Goal</td></tr> </table>	<u>NP</u>	(NP)	Agt	Goal		
<u>NP</u>	Adj/NP												
Exp/?													
<u>NP</u>	(NP)												
Agt	Goal												

Figure 4. Verb theta grids

3.2.2.2 Verbal morphology

In order to describe verbal morphology I have divided it into the categories of inner operators and outer operators. Under the heading of inner operators I consider morphemes marking direction, modality, and aspect. Under the heading of outer operators I consider morphemes marking illocutionary force, tense, status (realis/irrealis), and evidentials. Also considered under outer operators are a group of morphemes that do not seem to fit neatly into any of the categories just listed. Morphemes that have been fairly clearly identified will be described and exemplified, and morphemes whose function is less clear will only be listed with any hypotheses as to their function. Some comments are made as to the order of morphemes but this is an area needing further research.

Three different clause types are distinguished in Edolo, as in most Papuan languages. I use here the labels commonly used in Papuan linguistics of medial, subordinate, and final clause, applying the same labels to the verbs of each clause type (see also § 5.5). Figure 5, adapted from Foley (1986:177), illustrates the relationship between the different verb types. The labels I will use are those underlined in Figure 5 and example (9).

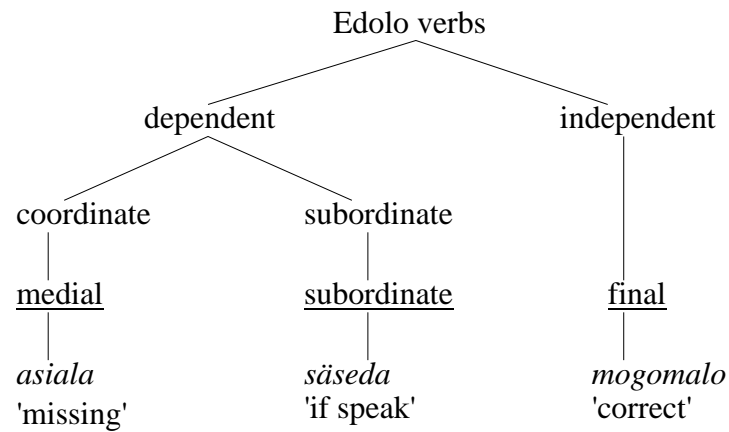


Figure 5. Edolo clause (and verb) types

- (9) *na* *asiala* *säседа* *dia* *mogomalo*
 1s-ERG miss-SIM say-COND 2s-ERG correct-FUT.IMP
 medial verb subordinate verb final verb

If I speak incorrectly, you correct (me).

[Sentence 040]

Medial, subordinate, and final verbs are distinctively marked in Edolo, and where morphemes specific to a certain clause type are described this will be noted. Morphemes not so designated should be considered to be used in all three types.

3.2.2.2.1 Inner operators

Table 9.--Inner operators

		Dir	Mod	Asp
<i>ada</i>	'up'	X		
<i>ga</i>	'over'	X		
<i>ida</i>	'down'	X		
<i>ima</i>	'away'	X		
<i>we</i>	'here'	X		
<i>delä</i>	'desiderative'		X	
<i>du</i>	'dubitative'		X	
<i>gaso</i>	'hypothetical'		X	
<i>i</i>	'desiderative'		X	
<i>ie</i>	'purpose'		X	
<i>labio</i>	'counterfactual'		X	
<i>loea</i>	'lest'		X	
<i>maea</i>	'causative'		X	
<i>sadu</i>	'intent'		X	
<i>si</i>	'benefactual'		X	
<i>digi</i>	'completive'			X
DUP	'iterative/extended'			X
<i>go</i>	'demonstrative'			X
<i>mu</i>	'habitual'			X
<i>salea</i>	'aspect'			X
<i>sa</i>	'aspect'			X
<i>se</i>	'aspect'			X
<i>sebe</i>	'aspect'			X

Table 9 above gives a summary chart of the morphemes considered below as inner operators in the areas of directionals, modality, and aspect.

3.2.2.2.1.1 Directionals

In addition to some of the motion verbs discussed in § 3.2.2.1 that indicate vertical direction, a few verbs typically indicate direction by a marker that immediately follows the root. The morphemes are: *ada* 'up', *ga* 'over', *ida* 'down', *ima* 'away', and *we* 'here'. It seems possible that at least some of the directional markers are not even bound to the root,

particularly the bisyllabic ones. Any other verbal morphology that occurs is attached following the directional morpheme, however. The primary verb with which these directional markers have been observed is *sadia* 'throw' as in *sadia-ga-mo* 'throw-over-PRES.IMP', or 'throw (it) over'. They are also attested with *gau* 'hold', *sä* 'say', and *fisigä* 'release' among others. The spatial deictic forms given in § 3.3.8 can function in a manner similar to the shorter morphemes given here. When used in this way these spatial deictics appear without the initial *g*, are not bound to the verb root and carry the verbal morphology as in *sadia imogo-molö* 'throw way.down-FUT', or '(I) will throw (it) way down'.

3.2.2.2.1.2 Modality

Probably the most commonly used of the morphemes considered here as modality is the causative morpheme, *-maea*. The causative is a valency increasing morpheme such that the intransitive *di digai* '2s fall-PAST' or 'you fell' becomes transitive in *na di digamaea* '1s-ERG 2s fall-CAUS', or 'I made you fall'. It seems to be used of both direct and indirect causation, and to include the permissive as well, which is often the case with morphological causatives (Comrie 1989:171).

The desiderative *-delä* marks intention as in *nilia nabe-delä* '1p-ERG hear-DESID', or 'we want to hear' [Leech2 007]. A similar meaning of intention is conveyed by *-sadu* in example (10) (on *sadu~hadu* alternation see § 3.2.2.1).

- (10) *nilia nuba midifoive fisigä-hadu*
1p-ERG snake bonds-here release-?DESID

We want to release the snake's bonds.

[Snake 010]

It seems likely, however, that *-sadu* is morphologically complex, composed of the aspectual *-sa* and *-du*, which marks something like 'dubitative'.

Looking further at *-du*, which I will gloss here as 'DUBitative', it can be seen to express something like 'wonder' or to function almost like a question marker. It is exemplified in *abilia hamomolö-du* 'how do-FUT-DUB', or '(they) wondered how (they) would do (it)' [Leech2 005], and *abilia hamoi-du* 'how do-PAST-DUB', or '(they) wondered how (it) was done' [Payback 018]. It is often used in conjunction with the yes-no question marker (YNQM), *-le*. It appears before the YNQM as in *amaile-du* 'pro.verb-PAST-YNQM-DUB', and *amamolöle-du* 'pro.verb-FUT-YNQM-DUB', indicating something like 'I wonder if it was so' and 'I wonder if it will be so', respectively. But it can also appear after the YNQM as in *ne dibälä mu-du-le* '1s 2s-COMIT go-DUB-YNQM' [Sentence 023] where the sense seems to be something like 'Do you want me to go with you?'.

The suffix *-gaso* seems to mark contraexpectation or perhaps hypothetical mood. It often equates with English 'almost', as when children say *digi-gaso* 'touch-PAST-HYP', or '(I) almost hit (it)'. In example (11) the hypothetical or contraexpectation sense might be considered to be in an elliptical 'and you might think there still are lots of Nabula clansmen'.

- (11) *dolö Nabula fi amoda iafie fi-gaso Gabulusadoea*
 man Nabula clan that-DEF many sit-PAST-HYP Gabulusado-ERG

nufudaha madelahilä
 hit-ASP ?-SEQ

There were many Nabula clansmen but Gabulusado killed them. [Payback 040]

A morpheme which is semantically related to *-gaso* is the counterfactual mode marker *-labio*, used on final verbs as illustrated in example (12).

- (12) *dolö iafie dofea-labio*
male many okay-CNTRFACT

Lots of men is okay (but there are not lots of men). [Sentconv 014]

There is another morpheme, with root form, *ga*, that nearly always appears in conjunction with *-labio* and seems likely to be related to the hypothetical marker *-gaso*. As seen in example (13) the hypothetical condition is marked by *ga* and the contrary-to-fact result is marked with *-labio*.

- (13) *hebe made nea asi ga-lebe dolö boboga fi-labio*
leech NEG get leave-PAST HYP-? male fat sit-CNTRFACT

If they had not gone to get the leech men would still be fat. [Leech2 018]

There are two markers that are used only following the future tense marker to mark a subordinate clause. The first of these, seen in example (14), seems to mark a subordinate clause indicating purpose, and uses a morpheme phonologically identical to the genitive case marker, *-ie*. The second, in example (15), marked only by *-i* following the future tense marker, seems to indicate desire. The distinction of *-i* from *-delä*, discussed above, may be only that the former is used in a subordinate clause whereas the latter is used in an independent clause.

- (14) *alögodaea ado-molö-ïe udia dolö wei*
doctor-ERG talk-FUT-PURP female male shout-PAST

The doctor called the people to speak (to them). [Doctor 017]

- (15) *wida amo hä dofä moholöi (mo-molö-i) asi*
 cassowary that result true go-FUT-DESID leave-PAST

That cassowary, truly wanting to go (get away), went. [Wida 019]

The subordinate clause marker *-loea* marks 'negative purpose', equivalent to English 'lest' as in example (16).

- (16) *udiaea mele-loea musügä delo*
 female-ERG see-NEG.PURP covert get-IRR

Lest the women see it, it is gotten secretly. [Fishproc 004]

Action performed for the benefit of someone else is marked by the suffix *-si*. The nominal referring to the benefactee itself does not seem to be required, although it is present in example (17).

- (17) *di Tari asegi nie mili odoa nea-si-maea*
 2s Tari go-SEQ-SUB 1s-BEN nail some get-BEN-CAUS

When you go to Tari I want you to buy some nails for me. [Sentence 245]

3.2.2.2.1.3 Aspect

Aspect has been one of the more difficult areas of the verbal morphology to pin down. One aspectual marking that is quite different in form from all the other verbal morphology is the reduplication that apparently marks some type of extended (or iterative) aspect. The pattern of reduplication is repetition of the first CV of the root and insertion of the copy immediately preceding the CV being copied. This pattern is followed whether the root starts with a vowel or not, such that it might be represented as #(V)C₁V₂C₁V₂. I am not certain of the effect reduplication has on stress placement. The reduplicated form

of *gau* 'hold' is **ga-gau**, of *ägu* 'carry' is **ä-gü-gü**, and of *asigi* 'think' is **a-si-sigi**.

Reduplication is illustrated in example (18).

- (18) *udia dolö ili sulubadola ge-gedoi*
 female male 3p all-? DUP-join-PAST

All the men and women gathered.

[Doctor 003]

There are some lexical items that appear to be reduplicated, but are not known to exist in any other form, for example, *asusuga* 'confuse', which does not seem to have a form **asuga*.

A morpheme with a meaning similar to that of the reduplication is *-mu* 'habitual' or 'continuous'. It seems to be an enclitic, attaching word-finally to all three verb types. It appears, as well, on words of other classes, where it has a meaning equivalent to English 'only', and is glossed 'ISOLative'. The relationship of meaning between 'habitual' and 'only' is not difficult to see. It is illustrated in *gaula maha nea-mu* 'hold-SIM come-ASP stand-HAB', or 'holding (it) they just kept coming' [Duluba 018b] where it attaches following the auxiliary *nea*.

Distinctions of aspect are commonly derived from serial constructions in Papuan languages, with extended aspect "generally associated with locative expressions, commonly verbs of location or posture" (Foley 1986:145), and with completed or perfective aspect usually related to "events of handling or disposal" (Foley 1986:145). Looking first at the latter category, the verb *digi* 'touch' is homophonous with a verbal morpheme that seems to mark completive or conclusive aspect. In *ödä amo söga-digi-lahilä* 'water that pour-CMPLV-SEQ', or 'after pouring that last water' [Sago 008] this marker is used in a clause that tells of the last of several applications of water in the process of producing sago flour.

There are several morphemes that seem to have their source in the postural verbs often associated with extended aspect. It has been difficult to distinguish their function, as well as to determine exact morpheme boundaries. Both *-salea* and *-sebe* occur as verbal morphemes and also as free forms of the existential verb 'sit'. In addition, there are verbal morphemes *-sa* and *-se* that also appear to be related to the root for 'sit'. It seems likely that *salea* is actually *sa-lea* and *sebe* may be *se-be*. See § 3.2.2.3 for a further listing of these existential verbs. Both *-sa* and *-sebe* are very commonly used, with *-salea* and *-se* less common. On first analysis *-sa* and *-sebe* seem to be present tense markers, and native speakers have told me that they mark first person and third person, respectively. Although they are often used in a manner consistent with this observation there are many counter-examples. As mentioned above *-sa* is used very commonly with first person but is also used in the content question, *di(a) edo hamo-sa* '2s(ERG) what do-ASP', or 'what are you doing', and is used at times with third person, as well. It seems likely that *-sa* and *-sebe* are aspect markers that, in some way I do not presently understand, lend themselves more to being used with one person than the other. They do not seem to be limited to use in the present tense although that is their primary use. No present tense marker has been identified to date unless a zero morpheme is posited (see § 3.2.2.2.2). The time reference of *-sa* in a final verb is fairly broad, being used of events recently completed, currently ongoing, and about to be commenced. Without further confusing the issue, I simply list here the four morphemes with an observation as to their application and will gloss them all as 'ASPECT':

<i>-sa</i>	final clause	(allomorph <i>-ha</i>)
<i>-salea (-sa-lea?)</i>	final and subordinate clauses	(allomorph <i>-halea</i>)
<i>-se</i>	subordinate clause	
<i>-sebe (-se-be?)</i>	final and subordinate clauses	

A morpheme that is mostly used in conjunction with *-sa* is *-go*. It is phonologically identical with the demonstrative 'this' and seems to specify immediate action at the time of speech, 'this time', in a sense. It is not clear whether it is a distinct verbal morpheme or an extension of the demonstrative and I gloss it simply as 'DEM'. It is commonly used in response to a summons as in *ne ma-ha-go* 'I's come-ASP-DEM', or 'I am coming now'.

3.2.2.2.2 Outer operators

Table 10 gives a summary of the morphemes discussed in the following sections in the areas of tense, status (irrealis), illocutionary force, evidentials, and miscellany.

Table 10.--Outer operators

	IF	Ten	Sta	Ev	Misc	gloss
<i>di</i>	X					'hortative'
<i>mabio</i>	X					'future prohibitive'
<i>mabu</i>	X					'present prohibitive'
<i>malai</i>	X					'past imperative'
<i>malo</i>	X					'future imperative'
<i>mo</i>	X					'present imperative'
<i>i</i>		X				'past'
<i>la</i>		(X)				'simultaneous'
<i>lahilä</i>		(X)				'sequential'
<i>lo</i>		X				'past (existential)'
<i>molö</i>		X				'future'
<i>lo</i>			X			'irrealis'
<i>sabeo</i>				X		'evidence heard'
<i>sio</i>				X		'evidence seen'
<i>wabu</i>				X		'evidence heard'
<i>dio</i>					X	'new information'
<i>melë</i>					X	'new information'
<i>fia</i>					X	'plural (motion)'
<i>folä</i>					X	'plural (existential)'
<i>gi</i>					X	'locative'
<i>da</i>					X	'definite'
<i>seda</i>					X	'conditional'

3.2.2.2.2.1 Illocutionary force

Illocutionary force (IF) marking is only on final verbs. Medial verbs take their IF marking from the final verb, and subordinate verbs are always declarative (Foley 1986:199)

Neither declarative nor interrogative clauses are overtly marked as such on the verb. The only exception is the yes-no question marker, which, as a clause-final clitic, often attaches to the verb (see § 3.3.7.3).

Any shortage in declarative and interrogative IF marking is made up for in the area of imperative markers. In addition to marking imperative, several of the morphemes seem to incorporate tense, as well. Most of the morphemes have quite a bit of similarity in phonological shape, as follows:

<i>-mo</i>	'present imperative'	<i>-mabu</i>	'present prohibitive'
<i>-malo</i>	'future imperative'	<i>-mabio</i>	'future prohibitive'
<i>-malai</i>	'past imperative'		

The present imperative is expected to be carried out immediately, as in *obëgela diga-mo* 'return-SIM descend-PRES.IMP', or 'returning you come down' [Bluff 024] where a father is issuing a command to his child. The 'future' sense of the 'future imperative' may be just the time necessary to get to a location where the command can be carried out. A husband, speaking to his wife who is sitting by the fire, may tell her *molö gobe-mo* 'food cook-PRES.IMP', or 'cook food'. The same man may speak to his wife when she is outside the house and say *molö gobe-malo* 'food cook-FUT.IMP', or, in a sense, 'go cook food'. It is also used of orders to be carried out in the future as in *gisi damu-malo* 'grass cut-FUT.IMP', or 'cut grass' [Doctor 023] where the doctor is giving orders for work to be done on future community work days. The concept of a past imperative does seem a bit strange but it appears to have the idea of an action that was carried out as a result of a command.

The tense distinction in the prohibitive morphemes seems to be that the 'present prohibitive' means 'do not do X at this time' while the 'future prohibitive' means 'do not do X in the future'. The 'future prohibitive' may apply to a situation that will be encountered in the future or it may apply to the present situation in addition to the future as in example (19).

- (19) *baile dü gui hēsë-mabio*
sugarcane residue here leave-FUT.PROH

Do not (ever) leave your sugarcane garbage here. [Sentence 177]

A fairly generic prohibitive is formed with the pro-verb *ama* as in *amamabu* 'pro.verb-PRES.PROH', or 'do not do that'.

There is also a hortative marker, *-di*, used with first person dual and plural, as in *wahalo dāilä-di* 'sago prepare-HORT' [Sentence 229] equivalent to 'let's make sago'.

3.2.2.2.2 Tense

I consider here the primary medial verb markers as marking relative tense. Morphology on medial verbs is fairly simple compared to that on final verbs. There are only two morphemes specific to medial verbs, the relative tense markers, *-la* 'SIMultaneous' and *-lahilä* 'SEQual'. This type of marking is common on medial verbs but apparently there is quite a bit of variation between languages as to how 'sequential' and 'simultaneous' are related (Longacre 1985:2:267-9). In Edolo, *-la* seems to be used for events in immediate succession as well as for simultaneous events, while *-lahilä* usually marks a situation where there is a definite break between the chained events, often a change in location. Example (20) gives examples of both types of medial clauses. The

medial verb morphemes, *-la* and *-lahilä*, could, alternatively, be analyzed as *-la* 'medial verb marker', with *-ø* 'SIM' and *-hilä* 'SEQ'.

- (20) *Gia -lahilä mösö amo figi -la agu -lahilä gea saga-lahilä*
 cook-SEQ house that roof-SIM finish-SEQ stud plant-SEQ

suda nida-la ba-lahilä öfä ifo sagasio
 sago.leaf shoot-SIM fasten-SEQ sago.stem wall plant-EV.PAST

Cooking then roofing and finishing that house then planting the [House 010]
 studs then making and fastening leaf panels (they) planted the
 sago wall.

Switch-reference marking, commonly used on medial verbs in Papuan languages, is not utilized in Edolo.

The past tense marker in Edolo is *-i* as in *ea siabulu gobe-i* '3s-ERG sweet.potato cook-PAST', or 'he cooked sweet potato' [Sentence 109]. In verb roots ending with /i/ the past tense marker coalesces with the final vowel as in *dolö iafie figi (figi-i)* 'male many thatch-PAST', or 'many men thatched (the house)' [House 008]. Although it is claimed that almost all Papuan languages have more than one past tense indicating degree of removal in time (Foley 1986:159), I have discovered only the one past tense marker with no distinction of degree of removal in time. The only possible exceptions to this are the irrealis marker *-lo* (see § 3.2.2.2.2.3) and one of the evidential markers, *-sio* (see § 3.3.7.2). Past tense on the existential verbs is marked by *-lo* giving the non-plural, past tense forms for 'sit', 'lie', and 'stand' of *sulo*, *dilo*, and *nelo*, respectively.

Future tense is marked by *-molö* as in (21). Like past, future tense does not distinguish degree of removal in time.

- (21) *di Salado nedaseda nege neda-molö*
 2s Salado descend-COND 1s-too descend-FUT

If you go down to Salado I, too, will go down. [Letter6 005]

No present tense morpheme has been definitively identified to date. Present tense marking may be tied up with the morphemes considered in § 3.2.2.2.1.3, which are related to the existential verbs, or perhaps it is marked with a zero marking.

3.2.2.2.2.3 Status (realis/irrealis)

The only morpheme that seems to fit clearly in the status, or realis/irrealis, category is *-lo*, which marks 'irrealis'. No overt realis marker has been identified to date. *-lo* seems to have a number of uses, but its most consistent use is on final verbs in procedural texts as in example (22).

- (22) *wahalo abala sadia idalahilä fudu doge-lo*
 sago chop-SIM throw down-SEQ branch remove-IRR

Chopping the sago tree down, then the limbs can be removed. [Sago 003]

It is also used in narrative texts of events not specific in time such as in (23). In this context and others it has the idea of abilitative.

- (23) *amasebegi dolö sege wagadimade nowe-lo*
 pro.verb-ASP-LOC male place last-side-NEG arise-IRR'

It being thus men were able to walk to far away places. [Leech 012]

Another usage, shown in example (24), includes the sense of habitual.

- (24) *waibo amo widaea sale-lo galöwabeo*
 black.palm that cassowary-ERG fill.up-IRR narrate-EV.hear

Cassowaries eat that black palm, he said. [Wida 003]

The same morpheme functions also as a nominalizer, turning a verb into a noun, such as the nouns *gudu-lo* 'hammer' from the verb *gudu* 'pound', and *au-lo* 'bridge' from the verb for 'go'.

3.2.2.2.2.4 Evidentials

The idea of 'past tense' seems to be the default in the bound morpheme *-sio*, marking 'visual evidence', since past tense is not otherwise marked as in examples (25) and (26).

- (25) *amalahilä ilia gähëö siabulu amolä gia-sio*
 pro.verb-SEQ 3p-ERG pandanus sweet.potato that-COMIT cook-EV.see

So then they cooked pandanus and sweet potato together (I saw). [Bosavi 033]

In a yes-no question like example (26) the evidential refers to the person being inquired of, 'Did you see them plant lots of sweet potato?'.

- (26) *ilia siabulu iafie saga-sio-le*
 3p-ERG sweet.potato many plant-PAST-YNQM

Did they plant lots of sweet potato? [Sentence 117]

-sio also occurs following the aspect marker, *-sa*, where it apparently marks an ongoing event that has been witnessed. It is also said to appear following the future tense morpheme but I do not have it in context and cannot explain its meaning.

The evidential marker *wabu* 'evidence heard', which seems to be a free form, is discussed briefly in § 3.3.7.2.

There is a second morpheme *-sabeo* that also seems to mark 'evidence heard'. It has allomorphs *-wabeo* and *-habeo*. The conditioning environment for the allomorphy has not been determined and morphological complexity is likely. The *-wabeo* allomorph is exemplified in example (24) in § 3.2.2.2.2.3.

3.2.2.2.2.5 Miscellaneous

There are two morphemes that seem to function on a higher level, perhaps a discourse level. The first, *-dio*, is used only in conjunction with the aspect marker, *-sa*, and with a first person subject. It seems to mark 'new information' as in *ne aha-dio* '1s go-ASP-new.info', or 'I am leaving'. The function seems to be more like marking an announcement since the normal context where *ne ahadio* is used is in taking one's leave from a group of people.

Another morpheme that seems to mark new information is *-melë*. It is used on final verbs and is used of past, present, and future situations. As an illustration, after having the markings on a rain gauge explained to him, an Edolo man responded, *na helësësamelë* '1s-ERG understand-ASP-new.info', or 'Now I understand' [Sentconv 020]. In equative clauses, which do not have an overt copula, *-melë* appears on the predicate nominal as in *neda Aeme-melë* '1s Aeme-new.info' [Ilua 098], or 'I am Aeme'.

Conditional clauses are marked with *-seda* as illustrated in example (27), repeating example (21) from § 3.2.2.2.2.2.

- (27) *di Salado neda-seda nege nedamolö*
 2s Salado descend-COND 1s-too descend-FUT

If you go down to Salado I, too, will go down [Letter6 005]

Thompson and Longacre say "in some languages, including Indonesian and certain languages of New Guinea, there is no distinction between 'if'-clauses and 'when'-clauses"

(1985:2:193). Edolo would seem to fit that description since this semantic distinction, which seems to be a difference in expectability, is not made. The situation in example (27) is clearly conditional, that is, not expected, but example (28) is clearly a 'when'-clause, an expected event.

- (28) *ne Ukarumpa a-seda ne gabi gähë nimolö*
 1s Ukarumpa go-COND 1s ax new get-FUT

When I go to Ukarumpa I will get a new ax. [Sentence 246]

In considering the formal features of subordinate clauses, Foley says that many Papuan languages "take some of the same inflections as nouns. The types of nominal phrase that subordinate clauses generally resemble are definite nominals" (1986:202). There are two morphemes *-gi* and *-da* that are used with subordinate clauses and are phonologically identical to nominal markers. As nominal inflection the former marks locative case and the latter marks something like definiteness or topicality. The subordinate clause relationship seems to cover a range of different meanings but usually marks given information. *-gi* is often used in tail-head linkage following either of the apparently aspectual morphemes *-se* or *-sebe*, as in example (29). *-da* is used following a number of different verbal morphemes of both subordinate and medial clauses as shown in examples (30) and (31).

- (29) *amasebe-gi su gaula hebe nea asi*
 pro.verb-ASP-LOC payment hold-SIM leech get leave-PAST

So, carrying the payment (he) went to get a leech. [Leech 003]

- (30) *fo mahalea-da edefade gusa*
 wind come-ASP-DEF big sound-ASP

The blowing wind makes a loud noise. [Sentence 247]

- (31) *hagila alahilä-da udia sebea ami-da made obëgei*
 fly-SIM leave-SEQ-DEF female sit-?-? there-DEF NEG return-PAST

Flying away then he did not return to where the woman was. [Bluff 031]

The subject agreement morphemes, *-fia* and *-folä*, are discussed in § 3.2.2.1.

For the record, I give in Table 11 a listing of other verbal morphology whose function has yet to be identified with any degree of certainty. Some are given with a hypothesis as to their meaning.

Table 11.--Unidentified verbal morphology

<i>ä</i>	'sequential'	<i>loyo</i>	'lest'
<i>bua</i>	'when'	<i>madei</i>	'perfect'
<i>e</i>	'imperative (motion)'	<i>malamo</i>	
<i>gala</i>		<i>me</i>	
<i>gole</i>		<i>melebe</i>	'1st person'
<i>iabe</i>	'desiderative'	<i>melöäbe</i>	'3rd person'
<i>ie</i>	'cause'	<i>o</i>	'vocative'
<i>ladigi</i>		<i>saea</i>	'initiate'
<i>lasi</i>	'cause'	<i>solo</i>	'when'
<i>lebe</i>	'cause'		

The INFL of GB, head of IP (Inflectional Phrase), is considered to follow the verb, as evidenced by the position of auxiliaries when they are used and consistent with Greenberg's universal 16 (1966:85). It is assumed to consist minimally of the tense and agreement markers but is suspected of having other constituents as well.

3.2.2.3 Existential verbs

Verbal morphology for the existential verbs is also quite complex. There remain a lot of questions here as well. Table 12 gives some of the different forms of these postural verbs and an indication of the inflectional meaning where it is known.

Table 12.--Existential verbs

'lie'	'sit'	'stand'			
<i>dilo</i>	<i>sulo</i>	<i>nelo</i>		PAST	
<i>dialea</i>	<i>salea</i>	<i>nea</i>		?	
<i>dibe</i>	<i>sebe</i>	<i>nebe</i>		?	
<i>dibea</i>	<i>sebea</i>	<i>nebea</i>		?	
<i>dibeo</i>	<i>sebeo</i>	<i>nebeo</i>		?	
<i>dimolö</i>	<i>samolö</i>	<i>namolö</i>		FUT	
	<i>samie</i>	<i>namie</i>		PRES.IMP	
	<i>samialo</i>	<i>namialo</i>		FUT.IMP	
<i>diëgi</i>	<i>sëgi</i>	<i>negi</i>		subordinate	
<i>diëda</i>	<i>sëda</i>	<i>neda</i>		conditional	
<i>difolalo</i>	<i>sefolalo</i>	<i>nefolalo</i>	p(lural)	PAST	
<i>difolalebe</i>	<i>sefolalebe</i>	<i>nefolalebe</i>	p	?	
<i>difolalea</i>	<i>sefolalea</i>	<i>nefolalea</i>	p	?	
<i>difolamolö</i>	<i>sefolamolö</i>	<i>nefolamolö</i>	p	FUT	
	<i>sefolamialo</i>	<i>nefolamialo</i>	p	FUT.IMP	
<i>difolalebeo</i>			p	?	?
	<i>sefolalebegi</i>	<i>nefolalebegi</i>	p	?	subordinate
	<i>sefolalebea</i>		p	?	?
	<i>sefolalebewe</i>		p	?	here
<i>difolalolahilä</i>	<i>sefolalolahilä</i>		p	PAST SEQ	

The use of these verbs as auxiliaries is considered to be a surface manifestation of the INFL of GB and their position following the VP is considered an indication that the IP is head-last.

3.2.2.4 Serial verb constructions

Serial verb constructions (SVCs) do not appear to be extensively used in Edolo as they are in some Papuan languages (Foley 1986:113-128 *passim*). There is quite a bit of discussion in the literature regarding the analysis of serial verbs (Bruce 1988; Crowley 1987). As the constructions themselves seem to vary along a spectrum from lexical to syntactic, so do opinions about their proper realm of consideration. I leave that discussion to others and simply record here what has been observed in the way of SVCs in Edolo, pointing out that they are distinct from constructions involving a medial and a final verb (see § 3.2.2.2.2). There are two patterns that have been observed in this area, both involving a series of two verbs. In both patterns the first verb in the series is a completely uninflected verb root, the only place where uninflected roots appear. The first pattern uses an inflected form of a motion verb as the second verb, usually *a* 'go', but *mV* 'come' and *feda* 'ascend' are also attested. Roots used in the position of the first verb are *aba* 'chop', *bea* 'see', *dea* 'get', *ää* 'give', *na* 'eat', and *nea* 'get'. The meaning of the SVC seems to be equivalent to English go (to) X such as in example (32) where an infinitive is used in the translation:

- (32) *Amasebegi su gaula hebe nea asi*
 pro.verb-ASP-LOC payment hold-SIM leech get go-PAST

So, carrying the payment (he) went to get a leech. [Leech 003]

In the second pattern, the uninflected initial verb root is followed by an inflected form of the verb *nege* 'put'. It seems that this may be marking an aspect distinction, as is common for verbs of "handling or disposal" (Foley 1986:145; see also § 3.2.2.2.1.3). Roots used in the position of the first verb are *aba* 'chop' (example (33)), *bea* 'see', *nufuda* 'hit', and *ugila* 'help' (example (34)). The last, *ugila* 'help', occurs only in this SVC.

- (33) *amo sagaia ami sagaha madelähiläda sagai*
 that plant-NR-ALL there plant-ASP ?-SEQ-DEF plant-NR

amo i aba negelo
 that tree chop put-IRR

After the garden there is all? planted the garden trees can be cut. [Garden 005a]

- (34) *dia ne ugila negela hamoi afädë hamomölöle?*
 2s-ERG 1s help-SIM put-SIM do-NR one do-FUT-YNQM

Will you help me do one job? [Letter2 004]

3.2.3 Adjectives

It is not clear whether adjectives in Edolo should be considered an open or a closed class. It could probably even be questioned whether or not there is such a class as adjectives. I proceed with the assumption that there is, and that it is probably best considered a closed class, but nevertheless I will consider adjectives here in the open class section.

The adjectives function primarily as modifiers of nouns in noun phrases, that is, attributive adjuncts, and as predicate adjectives. Many of the adjectives are given verbal inflection when they appear as predicates, yet they seem to be more like adjectives, appearing also in uninflected forms, for example, *nafade* 'bad' and *nafademölö* 'bad-FUT' (see Table 14). Others, in the same situation, seem to be more like stative verbs since they never occur without some inflection, for example, *yö-i* 'be.heavy-PAST' and *yö-mölö* 'be.heavy-FUT' but not **yö* 'be.heavy' (see Table 13).

Dixon (1977) characterizes adjectives as falling into seven semantic types: DIMENSION, PHYSICAL PROPERTY, COLOR, HUMAN PROPENSITY, AGE, VALUE, and SPEED. In languages with a closed class of adjectives the adjectives tend to fall into four types;

DIMENSION, COLOR, AGE, and VALUE. This fits quite well with the patterns being discovered for Edolo. Nearly all of the more common modifying forms, which seem to function as adjectives, fit into these four semantic types as shown in Table 14. The

Table 13.--Apparent stative verb roots

<i>boloe</i>	'be.tough'	<i>mihalä</i>	'be.angry'
<i>bologede</i>	'be.tough'	<i>nahi</i>	'be.wet'
<i>ede</i>	'be.big'	<i>neläsa</i>	'be.small'
<i>gasi</i>	'be.dark'	<i>olo</i>	'be.sick'
<i>gelo</i>	'be.strong'	<i>wahi</i>	'be.healthy'
<i>gudulo</i>	'be.selfish'	<i>yö</i>	'be.heavy'

Table 14.--Apparent adjectives

A	<i>gähë</i>	'new'	D	<i>badumu</i>	'skinny'
A	<i>gofo</i>	'old (things)'	D	<i>boboga</i>	'large'
A	<i>sali</i>	'old (people)'	D	<i>edefade</i>	'big'
C	<i>bëi</i>	'red'	D	<i>gege</i>	'small'
C	<i>falei</i>	'white'	D	<i>holöfali</i>	'small'
C	<i>yabui</i>	'black'	D	<i>hölobö</i>	'small'
C	<i>fagabuai</i>	'white.with.black'	D	<i>nimide</i>	'big'
C	<i>gabagaba</i>	'spotted'	D	<i>oboba</i>	'short'
C	<i>gebei</i>	'parted'	D	<i>sedade</i>	'long'
C	<i>heagosisi</i>	'spotted'	D	<i>yaduli</i>	'short'
C	<i>holëi</i>	'tan'	D	<i>nefali</i>	'small'
C	<i>samugai</i>	'tan'	HP	<i>ilaba</i>	'wild'
C	<i>silai</i>	'brown'	HP	<i>ohe</i>	'semi-wild'
C	<i>folomoi</i>	'yellow (bulb)'	V	<i>hedabi</i>	'good'
C	<i>ibäü</i>	'green (tree leaf)'	V	<i>nafade</i>	'bad'

A(ge), C(olor), D(imension), H(uman) P(ropensity), V(alue)

exceptions are the two words for 'wild' and 'semi-wild', categorized as HUMAN PROPENSITY. Dixon (1977:50-51) cites two other Papuan languages as having very similar inclusions from the HUMAN PROPENSITY type included among the adjectives (Hua- 'wild', Alambulak- 'wild', 'domestic'). For a discussion of the color terms given in Table 14 see § 3.2.3.1.

There are almost an equal number of modifying forms that are less common and whose status as adjectives is less certain, partly due to their infrequency, no doubt. Nearly all of this latter group, shown in Table 15, fall into the semantic type PHYSICAL PROPERTY. Some of them may be morphologically complex, and it can be observed that many of them end with /i/, which is the same as the past tense marker.

Table 15.--Questionable adjectives

<i>abeläi</i>	'thin'	<i>gäsiofäi</i>	'slippery'
<i>adelei</i>	'rough'	<i>gialäi</i>	'bald'
<i>bahoai</i>	'dull'	<i>gugi</i>	'bent'
<i>balägado</i>	'withered'	<i>hageai</i>	'light'
<i>bobogoi</i>	'lazy'	<i>haloi</i>	'crooked'
<i>busadäoi</i>	'poor'	<i>hawai</i>	'overripe'
<i>älämei</i>	'smooth'	<i>holei</i>	'round'
<i>gadugi</i>	'thick'	<i>huli</i>	'full'
<i>gadulami</i>	'thick'	<i>midafe</i>	'crossed'
<i>gäfisigäi</i>	'tasty'	<i>momaiei</i>	'strong'
<i>gagadelei</i>	'clear'	<i>nisi</i>	'cooked'
<i>gähä</i>	'smelly'	<i>ubahä</i>	'dirty'
<i>galiolei</i>	'smooth'	<i>wabäi</i>	'weak'
<i>galu</i>	'unripe'	<i>yauha</i>	'spindly'

A common inflection on adjectives is the suffix, *-fali* 'INTENSive', as in *hedabi-fali* 'good-INTNS'. The same suffix can be used on adverbs, and on nouns, such as *igi-fali*

'stone-INTNS', indicating 'real stone', not a soft one, and *udiafali* 'female-INTNS', indicating 'women only'. There is a different intensifying suffix, *-malä*, that occurs only with *edefade* 'big' such that 'very big' is *edefade-malä* and not **edefadefali*.

An adjectivalizing suffix *-wi* can be posited as derivational morphology, although on limited evidence. There are two nouns, *isi* 'mud' and *naga* 'ground/dirt', which have related forms *isi-wi* and *naga-wi* which seem to mean 'muddy' and 'dirty', respectively.

There are no comparative or superlative constructions in Edolo.

3.2.3.1 Color terms

The color terms discussed here are listed in Table 14. True color terms, those without specific object referents, seem to be limited to three: *yabui* 'black', *falei* 'white', and *bëi* 'red'. The distinction of these specific color terms is consistent with proposed implicational universals for basic color systems as illustrated in Figure 6 (Comrie 1989:37).

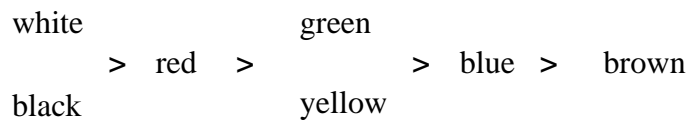


Figure 6. Color term hierarchy

There are three additional color terms that have specific object referents and several terms for describing color patterns on pigs and game animals. The three additional color terms are *ibäü* 'green', literally 'tree leaf', and two for 'yellow', *folomoi*, from *folomo*, a small yellow tuber used to color string bags, and *äbüë*, a yellow clay used in body decoration. This is also consistent with Figure 6, in that yellow and green are the next color terms expected in the hierarchy. There is no term for blue, the sky being considered *yabui*.

Terms for color patterns of pigs and game animals, some perhaps polymorphemic, are as follows:

<i>fagabuai</i>	'white with black'	<i>holëi</i>	'tan'
<i>gabagaba</i>	'spotted'	<i>samugai</i>	'tan'
<i>gebei</i>	'hair parted'	<i>silai</i>	'brown'
<i>heagosisi</i>	'spotted'		

3.2.4 Adverbs

Adverbs are considered here not as a particularly coherent class but as a number of different sets of words, as often seems to be the case (Schachter 1985:1:20). There is not a large class of adverbs, and there does not seem to be any productive morphology for deriving adverbs from any other class. The only hint of such a possibility is from the forms *hedabi* 'good', an adjective, and *hedabola* 'well', an adverb. No other pairs of this type have been recognized to date. Words that appear to function as adverbs in Edolo are given in Table 16.

Table 16.--Adverbs

	<i>bu</i>	'again'	M	<i>fodolo</i>	'quickly'
	<i>dofä</i>	'true'	M	<i>gälää</i>	'slowly'
	<i>made</i>	'NEG'	M	<i>giso</i>	'circuitously'
	<i>wäfali</i>	'false'	M	<i>hedabola</i>	'well'
D	<i>ami</i>	'there'	T	<i>deadi</i>	'afternoon'
D	<i>fisalä</i>	'away'	T	<i>esoa</i>	'good.day'
D	<i>ga</i>	'distant'	T	<i>gasigi</i>	'night'
D	<i>golobe</i>	'sideways'	T	<i>hädomade</i>	'recently'
D	<i>gui</i>	'here'	T	<i>hemolä</i>	'recently'
D	<i>ulu</i>	'sideways'	T	<i>hobea</i>	'later'
M	<i>abela</i>	'quickly'	T	<i>siba</i>	'before'
M	<i>fa</i>	'illicitly'	T	<i>yose</i>	'morning'
M	<i>fädälä</i>	'clearly'			

D(irectional), **M**(anner), **T**(ime)

Most of the adverbs listed are sub-classified notionally into directional, manner, and time adverbs. Example (35) illustrates the use of one of the manner adverbs and the negator, *made*.

- (35) *Adu fodolo made gaula misi*
 string.bag quickly NEG hold-SIM come-PAST

(He) did not come quickly carrying the bag.

[Ilua 063]

See also § 3.2.2.2.1.1 for directional marking in verbal affixes and § 3.3.8 for spatial deictics.

3.3 Closed word classes

3.3.1 Pronouns

3.3.1.1 Personal pronouns and inflected forms

Personal pronouns are marked for person and number with a three-fold distinction in each dimension, that is, first, second, and third person, and singular, dual, and plural number. Gender is not marked. Pronominal referents are limited to humans and supernatural beings while other referents, animals and inanimate objects, are referred to with demonstratives. This pronominal animacy distinction is "found quite frequently across languages" (Comrie 1989:191). The base set of unmarked pronouns is as in Table 17.

Table 17.--Basic pronouns

	Sing	Dual	Plur
1st	<i>ne</i>	<i>ali</i>	<i>nili</i>
2nd	<i>di</i>	<i>ali</i>	<i>dili</i>
3rd	<i>e</i>	<i>ele</i>	<i>ili</i>

These nine basic pronouns can be affixed in a number of different ways. Probably the most common marking of the pronouns is for ergativity. The ergative-absolutive case marking system is the same as that used on nouns (see § 3.2.1.2). Subject pronouns of transitive verbs are marked with the ergative case suffix, *-ea*, while subject pronouns of intransitive verbs and object pronouns of transitive verbs are both unmarked on the surface but could be considered to carry a zero morpheme marking absolutive case. The absolutive case pronouns then are the same as those given in Table 17. The ergative case marker on the pronouns undergoes a morphophonemic process whereby the first vowel, /e/, is deleted following a front vowel. In first person singular the front vowels of both the pronoun and the case marker are deleted. The ergative case pronouns are as in Table 18.

Table 18.--Ergative pronouns

	Sing	Dual	Plur
1st	<i>na</i>	<i>alia</i>	<i>nilia</i>
2nd	<i>dia</i>	<i>alia</i>	<i>dilia</i>
3rd	<i>ea</i>	<i>elea</i>	<i>ilia</i>

Genitive marking on the singular pronouns is the same as that on nouns, the suffix *-ie*, with the distinction that the final vowel of the pronoun is deleted. The non-singular genitive marking is *-le*. The genitive case pronouns are given in Table 19. In third person singular it can be seen that the identity of the original pronoun is completely lost. This

absence of surface manifestation will be seen to be true of third person singular in other forms yet to be discussed and could be considered to be so for the third person singular ergative, *ea*, as well. It may be that these surface forms of the third singular pronouns should be considered as suppletive forms and not as forms derived by phonological processes.

Table 19.--Genitive pronouns

	Sing	Dual	Plur
1st	<i>n̄ie</i>	<i>alile</i>	<i>nilile</i>
2nd	<i>dīe</i>	<i>alile</i>	<i>dilile</i>
3rd	<i>īe</i>	<i>elele</i>	<i>ilile</i>

The precise meaning of what I call here emphatic marking, and the exclusive marking considered later, have been difficult to determine. It seems, however, that the labels emphatic and exclusive come reasonably close to an indication of their function. Emphatic marking on Edolo pronouns is a bit unusual in that the marker can appear as a prefix, a suffix or an infix depending on the phonological shape of the pronoun. The surface form of the marker is either *h-* or *-hi(-)* depending on its environment. For the pronouns that begin with a vowel just the prefix *h-* is used. The exception is, once again, in third person singular where the original pronoun is completely lost and the surface form is simply *hi*. For the pronouns that begin with a consonant the marker is *-hi(-)*. In pronouns of one syllable the marker is suffixed, in those of two syllables the marker is infixed after the first syllable. These latter two could be viewed as one process where the marker is simply attached or inserted following the first syllable. There is also a change in the root vowel of the first person singular form. The emphatic pronouns are as in Table 20.

Table 20.--Emphatic pronouns

	Sing	Dual	Plur
1st	<i>nihī</i>	<i>hali</i>	<i>nihili</i>
2nd	<i>dihī</i>	<i>hali</i>	<i>dihili</i>
3rd	<i>hī</i>	<i>hele</i>	<i>hili</i>

The emphatic pronouns form a base for several other combinations of morphemes. They can be marked as exclusive by a regular process of suffixing *-do*. The exclusive marker does not appear without the emphatic marker. The emphatic pronouns can also be marked for genitive case by the completely regular adding of *-le* while the emphatic, exclusive pronouns are marked for genitive case by adding *-ie*, which is again a regular process in all nine forms. No phonological motivation is evident to explain the two different forms of the genitive case marker, *-le* and *-ie*, in the emphatic and the emphatic-exclusive, as well as in the simple genitive forms in Table 19. The dual and plural emphatic pronouns (non-exclusive) can also occur with a comitative marker, *-gila* 'together', and the second and third person, dual and plural, emphatic, comitative pronouns can occur with the ergative marker, *-ea*, following the comitative morpheme. The comitative morpheme might be better considered *-gVla* since the first vowel harmonizes with the preceding vowels. This process yields a different vowel only in third person dual since all the other forms end with /i/. All of the forms mentioned here as based on the emphatic pronouns are given in Table 21, which also includes a repetition of the pronouns given in Tables 17 through 20.

The asterisks in Table 21 mark combinations that are disallowed. Singular number and comitative marking are semantically incompatible. The other two ungrammatical forms are unexplained gaps which were said not to exist in the language. Other than the emphatic-comitative-ergative forms given above ergativity is not marked on pronouns that

carry the emphatic marker. These emphatic and emphatic-exclusive pronouns seem to function in either ergative or absolutive positions.

Considering ergativity as an equipollent ergative/absolutive opposition there are five different morphological markings discussed for the pronouns. These would yield a logical possibility of thirty-two combinations of affixes, nine of which are attested. With one exception, all of the other possibilities are known to be ungrammatical since they involve combinations of morphemes that native informants regard as ungrammatical. The

Table 21.--Edolo pronoun summary

	Erg		+						+	
	Gen		+		+		+		+	
	Emph		+		+		+		+	
	Excl				+		+			
	Comit						+		+	
1s	<i>ne</i>	<i>na</i>	<i>nie</i>	<i>nihī</i>	<i>nihile</i>	<i>nihido</i>	<i>nihidoie</i>	*	*	
2s	<i>di</i>	<i>dia</i>	<i>die</i>	<i>dihī</i>	<i>dihile</i>	<i>dihido</i>	<i>dihidoie</i>	*	*	
3s	<i>e</i>	<i>ea</i>	<i>ie</i>	<i>hī</i>	<i>hile</i>	<i>hido</i>	<i>hidoie</i>	*	*	
1d	<i>alī</i>	<i>alia</i>	<i>alile</i>	<i>halī</i>	<i>halile</i>	<i>halido</i>	<i>halidoie</i>	<i>haligila</i>	*	
2d	<i>ali</i>	<i>alia</i>	<i>alile</i>	<i>hali</i>	<i>halile</i>	<i>halido</i>	<i>halidoie</i>	<i>haligila</i>	<i>haligilaea</i>	
3d	<i>ele</i>	<i>elea</i>	<i>elele</i>	<i>hele</i>	<i>helele</i>	<i>heledo</i>	<i>heledoie</i>	<i>helegela</i>	<i>helegelaea</i>	
1p	<i>nili</i>	<i>nilia</i>	<i>nilile</i>	<i>nihili</i>	<i>nihilile</i>	<i>nihilido</i>	<i>nihilidoie</i>	<i>nihiligila</i>	*	
2p	<i>dili</i>	<i>dilia</i>	<i>dilile</i>	<i>dihili</i>	<i>dihilil</i>	<i>dihilido</i>	<i>dihilidoi</i>	<i>dihiligila</i>	<i>dihiligilaea</i>	
					<i>e</i>		<i>e</i>			
3p	<i>ili</i>	<i>ilia</i>	<i>ilile</i>	<i>hili</i>	<i>hilile</i>	<i>hilido</i>	<i>hilidoie</i>	<i>hiligila</i>	<i>hiligilaea</i>	

possibility of an emphatic-comitative-genitive pronoun is not attested in the data but is not ruled out by any information available at this point. The possible existence of a pronoun like *?helegelaie* 'EMPH-3d-COMIT-GEN' or 'belonging to those two together only' is an area for further research.

3.3.1.2 Demonstrative pronouns

The only fairly clear example of a demonstrative pronoun in Edolo is *go* 'this'. It is primarily in equative and descriptive clauses that *go* stands alone as a demonstrative pronoun although it does rarely function that way in active clauses as well. The demonstrative *go* appears unaffixed where absolutive case is expected and with dative case, *goma*, locative case, *gogi*, and genitive case, *goïe*, but is not attested with ergative marking. For a more thorough discussion of case see § 3.2.1.2.

Go functions more often, along with the pro-form *amo*, as a determiner. Their use as a type of definite determiner can be seen in examples like *malö go* 'child this' and *malö amo* 'child that', or 'the afore-mentioned child'.

In addition to the personal pronoun forms given in Table 21, third person non-singular pronouns, *ele* and *ili*, can also be attached to the demonstrative, *go* 'this', and the pro-form, *amo*, in its function as a determiner or a relative pronoun giving the forms in Table 22. The initial vowel of the pronoun is deleted in the process. It is possible that the forms *amo* and *go* also have underlying structures in combination with the third singular pronoun such as *amo-e* and *go-e* where the deletion of the initial vowel of the pronoun removes any surface manifestation of its presence.

Table 22.--Pronominal
combined forms

	that-	this-
3d	<i>amole</i>	? <i>gole</i>
3p	<i>amoli</i>	<i>goli</i>

In addition to the absolutive forms given in Table 22 these "determiner pronouns" can also appear with other nominal case marking. The third person dual, *gole*, is marked with a question mark since it is unattested in the corpus. It is predicted that further

research will prove it to be an acceptable form. In addition, the pro-form, *amo*, appears with a zero marking for absolutive and can also be marked with ergative case as in *amea* (*amo-ea*), dative case as in *amoma* and *amogali*, and genitive case as in *amoïe*. As mentioned above, it is not clear whether the third person singular pronoun, *e*, is involved or not since there is no evidence of it except possibly in the surface form *amea* that could be underlyingly either *amo-e-ea* 'that-3s-ERG', or just *amo-ea* 'that-ERG'.

The only exception to the pattern mentioned in § 3.3.1.1 of personal pronouns being restricted to human or supernatural being referents involves personification. This is exemplified in *näü amolia* (*amo-ili-ea*) 'taro that-3p-ERG', which uses a combined form of the pronoun in a sentence saying that the taro are talking as their leaves move back and forth in the wind.

3.3.1.3 Interrogative pronouns

The interrogative pronouns in Edolo are *nowe* 'who' and *edo* 'what'. The interrogative pronouns are the only two of the interrogative pro-forms or WH words that do not start with *ab-* (see § 3.3.2).

3.3.1.4 Indefinite pronouns

There are several words that might be called indefinite quantifiers in Edolo. These can fill a noun slot by themselves and so might also be considered indefinite pronouns. They are; *odoa* 'some', *nahoi* 'few', *iafie* 'many', *malei* 'many', *hulu* 'all', and *sulubada* 'all'. Other than these the only indefinite pronoun discovered to date is *nelebo* 'something'.

3.3.1.5 Relative pronouns

The main function of the ubiquitous *amo* appears to be as a relative pronoun. It seems to be similar to English that in being able to function as a demonstrative determiner as well. A word frequency analysis of the text database and the Mark text shows how

common *amo* is. In the text corpus *amo* appears in 7.4% of 6,220 words making it the most common root and nearly three times as frequent as its nearest competitor *ne* '1s'. In the Mark text *amo* appears in 6.2% of 16,981 words making it the second most frequent, behind *sä* 'say' with 7.5%.

3.3.1.6 Miscellaneous

There is a usage of first person dual in addressing a group that stretches the meaning of dual a bit. In a construction like *ali naga daiya udia dolö sebe* '2d ground on female male sit-ASP', or 'we two are earthly people' the 'we two' apparently refers to the speaker himself as one individual and the audience collectively as the second. The discourse function of this usage remains to be discovered.

In the data I presently have there are no clear examples of either reflexive or reciprocal pronouns, the anaphors of GB. As a result no statement can be made regarding adherence of anaphors to conditions proposed by Binding Theory. My impression is that while there is no doubt a way to express these ideas in the language, it is not very productive. For pronouns the governing category (GC) is the entire clause and pronouns are free in their GC. There is one way in which the first person dual pronoun can be used that might be considered an exception to this. In an addressee-exclusive use of first person dual, the included person can be named along with the pronoun as in *nïe udia ali* '1s-GEN female 1d', or 'my wife we (two)' [House 014] where the pronoun finds part of its antecedent within the GC.

3.3.2 Pro-forms

3.3.2.1 Interrogative pro-forms (WH- words)

The interrogative pro-forms, or WH- words, might be called AB- words in Edolo. With the exception of the pronominal forms, *edo* 'what' and *nowe* 'who', all of the question

words begin with *ab-*. The question words are given in Table 23. Two forms occur for both 'how' and 'when' but no distinction in either function or meaning has been determined. The forms do not appear to be polymorphemic.

Interrogative words are assumed to carry a lexical feature [+WH] for semantic interpretation and movement at Logical Form. They do not undergo movement at S-structure.

Table 23.--Interrogative pro-forms (WH- words)

<i>abëähä</i>	'how'	<i>abodogala</i>	'when'
<i>abidi</i>	'where'	<i>abola</i>	'when'
<i>abilia</i>	'how'	<i>aboläää</i>	'how many'
<i>abisi</i>	'why'	<i>edo</i>	'what'
<i>abodo</i>	'which'	<i>nowe</i>	'who'

3.3.2.2 Pro-verbs

The most widely used pro-form other than *amo* is *ama*. It is probably best considered a pro-verb or pro-verb phrase but can also function as a pro-clause. In the text corpus it is the third most common root appearing in 2.4% of 6,220 words, just behind *ne* '1s', and well behind *amo*. In the Mark text it is the sixth most common appearing in 2.2% of 16,981 words. It takes verbal morphology and is widely used in tail-head linkage (see § 5.5) in combination with the pro-form *amo* to recapitulate the entire preceding sentence as illustrated in the two sentences of example (36).

- (36) *öfä ifo sagalahilä si alalo gai.*
 sago.strip wall plant-SEQ eye wall fasten-PAST

Making the outer wall, then they fastened the inner wall.

[House 011]

Ama-lahilä imidi
 Pro.verb-SEQ make.bed-PAST

Doing that then they made the bed.

[House 012]

A very common form of the tail-head linkage uses two pro-forms as in *ama-i amo* 'pro.verb-PAST that', often shortened to *maimo*. *Ama* appears with many different verbal endings like *amamolöledu* 'I wonder if it will be so', *amamalo* 'you go do so', and *amamabio* 'do not ever do so'. Its function as a pro-clause is often seen when a speaker is questioned on the details of some event he has just related or some clarification is sought with a yes-no question. The speaker's response will normally be *mai*, the shortened form of *amai* 'pro.verb-PAST', or 'it was as I said'. Other pro-clause equivalents of 'yes' include *ä*, *oo*, *mm*, and a raising of the eyebrows. Equivalents of 'no' include *ai*, *made*, and shaking the hand in a manner similar to the gestural expression of 'so-so' in American English.

The verb *hamo* 'do' or 'make' functions as a pro-verb in Edolo in much the same way as 'do' in English. The expression, *na hamosa*, 'I will do it', is the common way of offering to perform any number of different services for someone else. *Hamo* is also one of the most frequently appearing roots in the corpus.

3.3.2.3 Other pro-forms

The pro-adverb *gomalä* 'like this' is used in expressions like *gomalä hamolo* 'like.this do-IRR', or 'it is done like this'.

The pro-forms *gadoi* and *gadola* seem to be pro-adjectives or perhaps a pro-adjective and a pro-adverb respectively. The meaning of the different endings is not clear. They are used in examples like *Agale ni amo gadola* 'like the one Agale got' and *haea maliabe gadoi* 'a bird like a maliabe'. *Gadola* most often states likeness to the pro-form, *amo*, which refers back to another construction, usually a clause. *Gadoi* most often

describes likeness to and follows a simple noun. In the Mark text, of 78 occurrences of *gadola* 85% follow *amo*, and of 62 occurrences of *gadoi* only 21% follow *amo*. The possibility of these two forms marking something like simile and metaphor is an area for future research.

One last pro-form, *ebeda*, could perhaps be labeled a pro-X. It seems to be roughly equivalent to American English expressions like whatchamacallit but has even wider use. Its basic function seems to be to substitute for any word that does not come readily to mind when speaking and I have seen it used once in writing. It can even be used in place of verb roots and have verbal morphology attached.

3.3.3 Postpositions

In line with Foley's observations about Papuan languages Edolo postpositions "express concrete locational notions" (1993:93). Many of the relationships expressed by prepositions in English are expressed by case marking in Edolo (see § 3.2.1.2). There are fairly consistent distinctions in phonological shape between the postpositions and case markers. The case markers are phonologically bound and, for the most part, are short morphemes of one or two segments, mostly monosyllabic while postpositions are phonologically free, polysyllabic, and generally begin with /t/ (graphemic <d>). The postpositions identified to date are given in Table 24.

Table 24.--Postpositions

<i>dabodo</i>	'on'	<i>dudua</i>	'beside'
<i>daiya</i>	'on'	<i>hawa</i>	'under'
<i>dala</i>	'straight to'		

The two postpositions glossed 'on' in Table 24 are distinguished in that *dabodo* is used where motion 'on' is expressed, and *daiya* is used where a stationary object is 'sitting

on' something. No compound postpositions have been discovered and I have not recognized any morphology internal to postpositions.

Postpositions are considered to be among the case assigners of GB Case Theory and to assign abstract absolutive case.

3.3.4 Quantifiers

The Edolo counting system is based on body parts. This type of system is apparently quite common in Papua New Guinea with quite a bit of variation in the number of body parts counted (Franklin and Franklin 1962; Smith 1988). The precise base number of the Edolo system is a bit difficult to establish but seems to have been thirty-four. At present, things are in the process of changing to a decimal system due to the influence of the decimal based national monetary system and the English language educational system. Body parts are still used but quantities are now stated in groups of tens and ones rather than using the full traditional numerology. A quantity like forty-three is usually expressed as *nabülasi biidia huniane ohodoa* 'ten-total four ones three'. The word used for 'ones', *huniane*, may not be native Edolo vocabulary. The appearance of /n/ word-medially and the fact that *huniane* is not attested anywhere in the text database or the Mark text and my limited intuition suggest that it is a loan word although no source has been determined.

Traditional counting starts with the little finger of the right hand and goes up the arm across the head and face and back down to the little finger of the left hand. The uncertainty regarding the base number arises from conflicting accounts as to which body parts between the shoulder and eye are counted. The confusion is probably due to the change to the decimal base such that the numbers above ten are seldom used now. Some informants have claimed that there is an old way and a new way with the new way using either *galo* 'side of neck' or *giwi* '(collar) bone' for twelve and *ba* 'cheek' or *gëhë* 'ear' for

thirteen. The anthropologist Kelly, who did his fieldwork among the Edolo in the late 1960's, relates stories referring to pigs in groups of thirty-four (1993:200). There would have been very little outside influence at that time indicating that the system was probably based on thirty-four originally. In Table 25, I give the system including all of the seventeen body parts.

The seventeen body parts are counted on each side of the body giving the base of thirty-four. In counting down the left side of the body in the traditional system the word *nai* is repeated before each of the numbers. *Nai* is apparently from *naiado* 'opposite'.

Table 25.--Quantifiers

Noun	Body part	Modifier	
<i>age</i>	'little finger'	<i>afäde</i>	'one'
<i>agedu</i>	'ring finger'	<i>äüda</i>	'two'
<i>osoda</i>	'middle finger'	<i>ohodoa</i>	'three'
<i>biidu</i>	'index finger'	<i>biidia</i>	'four'
<i>bi</i>	'thumb'	<i>biya</i>	'five'
<i>gafe</i>	'palm'	<i>gafea</i>	'six'
<i>gifalädalü</i>	'wrist'	<i>gifalädalia</i>	'seven'
<i>gödö</i>	'forearm'		'eight'
<i>sägë</i>	'elbow'		'nine'
<i>nabü</i>	'upper arm'		'ten'
<i>gida</i>	'shoulder'		'eleven'
<i>giwi</i>	'(collar) bone'		'twelve'
<i>galo</i>	'side of neck'		'thirteen'
<i>gëhë</i>	'ear'		'fourteen'
<i>ba</i>	'cheek'		'fifteen'
<i>si</i>	'eye'		'sixteen'
<i>mimogo</i>	'nose' (<i>mi</i>)		'seventeen'

In counting large quantities the counting is 'left off' when the little finger of the left hand is reached and it starts over again on the right side. One complete cycle is called *fisi afäde* 'leave-PAST one', or 'one leaving off'. The forms as they are used in counting are given in the first column of Table 25. These are the same as the body part names, with the exception of *mimogo* 'seventeen', which is slightly different as given in the table. The same body part terms for one through seven are used of the foot and ankle when preceded by the word *emo* 'leg' but these are not used in counting. The forms given for the numbers one through seven in the third column are the forms that are used as modifiers following a noun as in *helebe afäde* 'machete one' or *sugua ohodoa* 'pig three'. When the numbers eight through seventeen are used as modifiers the suffix *-lasi* is attached to them as in *malö gödö-lasi* 'child eight-total' or *öhöëö sэгë-lasi* 'game.animal nine-total'. The morpheme *-lasi* is also attached to the last number when counting if the total is over seven. If counting ten items, for example, the count will finish up with ...*gödö, sэгë, nabü-lasi* 'eight, nine, ten-total'.

One practical use of the body part counting system that must be a fairly recent development is in relating a given date in the future to a day of the week. The seven days of the week are related to each of the first seven body parts. Monday is considered to be the first day so it is the little finger. If, for example, a person knows that today is Thursday, the seventh of the month, he can calculate what day of the week an event expected to occur on the thirteenth will occur. Starting with his index finger, which represents the fourth day, Thursday, he can count from there beginning with today's date, the seventh. When he gets to the wrist, representing the seventh day of the week, he will go to the little finger and continue counting from there to arrive at thirteen on the middle finger, which tells him that the thirteenth will be the third day of the week, Wednesday. In this type of calculating the counting for the days of the month will normally be done using base ten counting and often in English. The days of the week are named from the

first seven counting numbers with a locative case marker, *-gi*, attached as in *osodagi* 'three-LOC' or 'Wednesday'.

The indefinite quantifiers are *hulu* 'all', *iafie* 'many', *malei* 'many', *nahoi* 'few', *odoa* 'some', and *sulubada* 'all'. As mentioned in § 3.3.1.4 it is possible for all of these to function as indefinite pronouns as well.

3.3.5 Conjunctions and complementizers

Many of the morphemes considered in this section are not free words but clitics, specifically enclitics. They are all monosyllabic, unstressed and are attached, usually, at the phrase or clause level.

3.3.5.1 Conjunctions

One means of conjoining noun phrases is the enclitic *-le*. This conjoining clitic is one of several morphemes of the shape *-le*. It is considered to attach itself at the phrase level with some of the conjoined NPs consisting of single nouns. *-le* is normally attached to each NP in the series as in *efege amo-le eedo amo-le* 'son that-and father that-and' [Bluff 005]. Four is the highest number of conjoined NPs attested in the corpus and the maximal expansion of conjoined NPs is N Det. If the conjoined nouns function as the subject of a transitive verb the ergative case marker is attached after the conjunction. There seems to be freedom to attach the ergative marker (reduced from *-ea* to *-a*) either to both nouns as in *neme-le-a nado-le-a ni* 'my-mother-and-ERG my-father-and-ERG get-PAST', or '(the fish) my father and mother got' [Fishnarr 013], or just to the last noun as in *idia-le egoa-le-a heledo mai* 'wife-and husband-and-ERG EMPH-3d-EXCL eat-PAST', or 'the wife and husband themselves ate' [Ilua 010]. Even the conjunction is at times only attached to the second noun as in *Yemese Yone-le* 'James John-and' [Mark 3:17] but this pattern is not attested in the text database and may be a translation error. If the conjoining enclitic is only on the last noun the ergative marker, if it appears, will be only on the last

noun as well. It is not clear whether there is a meaning difference with one conjunction or two. The presence of the ergative marker on both conjoined nouns may indicate the two subjects are not identified together in the action. For example, in *nemelea nadolea ni* from above, the sentence the clause is taken from talks about cooking fish that the parents got. The parents would probably not have been together when they got them, however. Due to the paucity of examples of this type this explanation will have to remain a hypothesis for now.

What seems to be the most productive conjoining morpheme is the enclitic *-ge*. It is used with adjectives, time adjuncts, noun phrases and verb phrases. It is attached word-finally to the final word of whatever type of phrasal category or word class it is conjoining. When used to connect a series of phrases it is cliticized to the end of each constituent of the series as in *säfü amo-ge, baile-ge, ödë-ge* 'asparagus that-too, sugarcane-too, pitpit-too' [Garden 007]. Its function however seems often to be more additive like the English 'too', especially when used with other classes. It is used to connect thoughts between clauses in a single sentence as in example (37) where the object of the main clause is conjoined to the object of the subordinate conditional clause, in the sense that both will be struck.

- (37) *dia go nufuseda, ea di-ge nufulömelë.*
 2s-ERG DEM hit-COND 3s-ERG 2s-too hit-FUT-new.info

If you hit him, he will hit you, too.

[Sentence 150]

It is also used to connect thoughts between sentences as in example (38), which is one in a series of independent sentences, and in example (39), where *-ge* in the second sentence may be considered to conjoin the subjects of the two sentences.

- (38) *alögodagali-ge nogoböla i*
 doctor-DAT-too string.together-SIM give-PAST

Stringing some for the doctor also (we) gave (them). [Fishnarr 015]

- (39) *na dili heläselä Godema adosa neamelä*
 1s-ERG 2p think-SIM God-DAT talk-ASP stand-new.info

I, thinking of you, am talking to God. [Letter4 024]

- dia-ge ne heläselä Godema adomalo*
 2s-ERG-too 1s think-SIM God-DAT talk-FUT.IMP

You, too, thinking of me, talk to God. [Letter4 025]

It can be seen from examples (39) and (38) that, unlike the conjunction *-le*, *-ge* is attached following the case markers, here ergative and dative, respectively. The two conjunctions can even occur together as in *eedo eme-le-ge dolö ohodoa* 'father mother-and-too three men' [Mark 5:40] where 'father' and 'mother' form a conjoined constituent and *-ge* adds them to the other constituents of the subject of the intransitive clause.

There are three conjunctions that are free words, namely *be* 'but', *galu* 'while', and *ma* 'or'. The coordination conjunction *be* 'but' is not widely attested in the corpus and I have a suspicion that it is borrowed from Huli, a neighboring language that functions as the area trade language. Its use is illustrated in example (40).

- (40) *galaseda nihï meli be digase amoda na made meli.*
 split-SEQ-DEF 1s-EMPH see-PAST but fall-SEQ that-DEF 1s-ERG NEG see-PAST

I saw the splitting but I did not see the fall. [Duluba 014b]

The second free morpheme connector is the disjunctive *ma* 'or'. Its primary use is to connect yes-no question alternatives as in *dia mösö ulimölöle ma diadoea mosö ulimölöle* 'Are you going to build a house or is your father going to build a house?' [Sentence 201].

Often the second alternative is just a negated form of the first as in *digamolöle ma made digamolöle* 'will it fall or will it not fall?' [Mark 11:23]. In many of these cases the second negated alternative is contained just in the pro-clause, *made* 'negative', to which the yes-no question marker, *-le*, is attached such that the preceding example could also be shortened to *digamolöle ma madele* 'will it fall or not?'.

Certain subordinate adverbial clauses are connected by means of the morpheme *galu*. Clauses with simultaneous action but different subjects are joined by *amo galu*. They can be either two or more fully independent clauses, as in example (41), or one independent clause and another clause marked with subordinate verbal morphology. The subordinate verbal morphology is distinct from the morphology used for medial verbs in chained clauses (see § 3.2.2.2.2). In addition to this use of *galu*, equivalent to 'while', there is also a phonologically identical verb root meaning 'join' whose semantic connection to the conjunction is not hard to see.

- (41) *amala hamosa nebe amo galu ne molö made nala dialeamu*
 pro.verb-COMP do-ASP stand that while 1s food NEG eat-SIM lie-ASP-HAB

While they were doing that I just stayed there not eating food. [Duluba 20b]

3.3.5.2 Complementizers

A complement clause is marked as such only by the complementizer *-la*. The complementizer is cliticized to the end of a complement clause. One of the typical sources from which complementizers derive diachronically is case markers (Noonan 1985:2:47). This is consistent with the evidence here since *-la* is homophonous with the ablative and comitative case markers in Edolo. Its most frequent use is with the verb *sä* 'say', as in example (42).

- (42) *fele dabiamalo-la säi*
 ridge cross.over-FUT.IMP-COMP say-PAST

He said, "Go crossover the ridge". [Hamaga 016]

It is also used with other verbs like *helësë* 'think', *mele* 'see', and *didü* 'discuss'. It is possible to have a complement clause embedded within another complement clause, as in example (43).

- (43) *mosalo-la sämabio-la säi.*
 go-FUT.IMP-COMP say -FUT.PROH-COMP say-PAST

They said, "Do not say, 'You go'." [Mark 5:10]

3.3.6 Verb auxiliaries

A set of three inflected auxiliaries based on the postural be verbs, also called existential verbs, can appear following the final verb of a clause. As is common in Papuan languages these auxiliaries indicate sitting, lying or standing posture (Foley 1986:145). Subject agreement, which occurs elsewhere only on motion verbs, is marked on the postural verbs. There is quite a bit of irregularity in these auxiliaries or at least not presently understood patterns, both in their form and function. The past tense, non-plural number forms are *sulo* 'sit', *delo* 'lie', and *nelo* 'stand'. The initial consonants of each form are about the only consistent part in the inflected forms and so the roots might be considered to be *s*, *d*, and *n* for 'sit', 'lie', and 'stand' respectively. See § 3.2.2.3 for the inflected forms.

These auxiliaries are considered to be the manifestation of the INFL of GB theory and an indication that the position of INFL is following the verb in the SOV word order.

3.3.7 Particles and clitics

3.3.7.1 Copula

Equative and descriptive clauses have no overt copula. Existential clauses have an overt copula, one of the postural verbs, 'sit', 'lie', or 'stand', which also function as auxiliaries. The past tense, non-plural forms are *sulo* 'sit', *dilo* 'lie', and *nelo* 'stand'. As mentioned in § 3.3.6 subject agreement is marked on the postural verbs. Subject agreement is only for number and only the plural form is marked, with both singular and dual number being unmarked. This same pattern is followed in marking subject agreement on motion verbs although the shape of the morpheme is different. The plural subject agreement morpheme of postural verbs is *-folo* giving the past plural forms *sefolalo*, *difolalo*, and *nefolalo* for 'sit', 'lie', and 'stand' respectively. Beyond the use of these verbs in their literal postural sense there are certain conventions for their non-specific use in existential clauses. Existential clauses with inanimate subject nouns use a form of 'lie' as in *nagobe dialea* 'arrow lies' while existential clauses with animate subject nouns use a form of 'sit' as in *nado salea* 'my father sits', which can be used either in the sense of being alive or of being physically present. Either type of existential clause can also include a locative, as well, as in *nado Bobole salea* 'my father is in Bobole'. Existential clauses with animate subjects may use 'lie', or 'stand' when their specific postural meaning is intended.

In consideration of X-bar Theory of GB, the phonologically empty copular verb of equative and descriptive clauses, and the postural verbs are analyzed as having an INFL that assigns absolutive case to the subject (SPEC) and that themselves assign absolutive case to their complements.

3.3.7.2 Evidentials

One class of particles with a fixed clause position is the evidentials. This is an areal feature with its source apparently in the Engan languages, which border on the Edolo area.

The evidential system is an area needing quite a bit of further research and analysis before definitive statements can be made. Some of the evidential system seems to be expressed in portmanteau morphemes as part of the verbal tense morphology. The most frequent and easiest to analyze of the evidentials is sentence-final *wabu*, which marks 'hearing' as the evidential basis. This is used very commonly in traditional stories and in conversation when one person repeats what another person has just said, perhaps for someone who did not hear it the first time, where it just has the sense of 'he said'. The lack of the morpheme *wabu*, a zero marking, indicates that what is being related was seen.

3.3.7.3 Yes-no question marker

The yes-no question marker (YNQM) is another of the morphemes of the phonological shape *-le*. It is a clitic attaching to the end of a clause. It is a very flexible morpheme and can form a yes-no question out of a clause, a phrase or a single word of just about any class. It is also used at times at the end of a declarative clause attached to the negative *made* to form a kind of tag question, *made-le* 'is it not so?'. This seems to be a positively biased yes-no question and to have, perhaps, a rhetorical function.

There is a fairly widespread phonological process of progressive spreading of nasalization that affects all vowels and the liquid /l/. This nasal spreading never affects the liquid or the vowel of the YNQM or of the homophonous conjunction but does affect the homophonous genitive case marker. The phonological process has not been thoroughly analyzed to date but the behavior of the YNQM and the conjunction indicate that within a lexical phonology the attachment takes place on a stratum subsequent to that of the nasal spreading rule, or, more likely, post-lexically. It might also be that the process is blocked by the clitic boundary of the YNQM or the boundary of the conjunction, which seem to be attached at the phrase level.

It is suggested that the YNQM occurs in the COMP of CP slot.

3.3.8 Deictics

In addition to the demonstrative pronouns discussed in § 3.3.1.2 there is a fairly complex, and only partially understood, system of spatial deictics in Edolo as well as a fairly straightforward system of temporal deictics.

3.3.8.1 Spatial deictics

Spatial deictics in Edolo are quite complex and have not yielded to a definitive analysis to this point. There are two systems of deictics with the functional distinction between them unclear. Distance seems to be relative within each set. The less complex set, possibly used of shorter distances is:

		<i>goda</i>	'that above'
<i>go(we)</i>	'this(here)'	<i>gagowe</i>	'that same level'
		<i>guda</i>	'that below'
		<i>guma</i>	'that far below'

The term *gagowe* seems to be composed of an adverbial morpheme *ga* 'over' preceding the term for 'this-here', *gowe*. The other three terms indicating things on a different level from the speaker are quite similar in phonological shape, manifesting an alternation in the first vowel, between *o* and *u*, and in the second consonant, between *d* and *m*. It appears that *o* indicates 'up', while *u* indicates down. It might be considered that *d* marks a difference in elevation while *m* marks a more drastic difference in elevation. Given the preceding analysis one might expect the existence of a form **goma* 'that far above' but such a form does not exist. Evidence will be considered below that suggests that position below the speaker is inherent in the meaning of *m*.

Patterns seen in the vowels and consonants of the first set, and in the directional verbal morphology discussed in § 3.2.2.1.1, are carried through and expanded on in the other, more elaborate, set of deictics as follows:

<i>godogo</i>	<i>gado</i>	<i>gidogo</i>	<i>gudogo</i>
<i>gologo</i>	<i>galogo</i>	<i>gimogo</i>	<i>gumogo</i>
<i>gosogo</i>	<i>gasogo</i>		

Only the vernacular morphemes are given here for the purpose of consideration of their morphemic composition. Possible meanings are suggested in Table 26. It can be seen from the forms given above that this second set again manifests a consistent phonological shape, with variation only in the first vowel and the second consonant. The vowels alternate between *i*, *a*, *o*, and *u*, while the consonants between *d*, *s*, *l*, and *m*. Analyzing these terms based on their use in the corpus and in elicited example locations illustrating the relationship I have been able to arrive at some tentative meanings for the alternations seen here. It is fairly clear that *o* and *a* indicate position above the speaker, and that *i* and *u* indicate position below the speaker. It seems to be the case that *o* and *i* indicate a greater degree, either of angle or distance away from the speaker, than *a* and *u*, respectively. Meanings for the consonants is less sure, but it seems possible that *d* marks simply a difference in elevation, apparently gradual, *s* indicates 'around', suggesting perhaps an intervening obstacle, *l* indicates 'across', often with lower ground in between, e.g. across a valley, and *m* marks a more drastic difference in elevation. There are ten deictic expressions used in this set whereas the alternations of four vowels and four consonants could generate a total of sixteen forms. The ungrammaticality of the remaining forms **gamogo*, **gilogo*, **gisogo*, **gomogo*, **gulogo*, **gusogo* has also been considered in arriving at possible meanings for the morphemes involved. The fact that *m* does not co-occur with either *o* or *a*, which mark position above the speaker, suggests, as mentioned above, that position below the speaker may be included in the meaning of *m*. The fact that *l* 'across' and *s* 'around' do not co-occur with either *i* or *u*, which mark position below the speaker, suggest that the senses of 'across' and 'around' are somehow incompatible with a marking

of position below the speaker. Putting these tentative meaning assignments together gives the combinations in Table 26.

All of the forms with *i* or *a* as the first vowel, those marking a less drastic positional difference, can appear with or without the initial consonant, *g*. A possible functional difference for this variation is an area for further research. It does not appear to be phonologically conditioned.

Table 26.--Spatial deictic expressions

	vowel meaning	consonant meaning	approximate equivalent
<i>godogo</i>	far up	different elevation	'way up there'
<i>gologo</i>	far up	across	'way over there'
<i>gosogo</i>	far up	around	'up around there'
<i>gadogo</i>	up	different elevation	'up there'
<i>galogo</i>	up	across	'over there'
<i>gasogo</i>	up	around	'around there'
<i>gidogo</i>	down	different elevation	'down there'
<i>gimogo</i>	down	far (down)	'way down there'
<i>gudogo</i>	far down	different elevation	'down there'
<i>gumogo</i>	far down	far (down)	'way down there'

As previously mentioned the distinctions in the positions described by these deictic terms seem to be relative in two senses; in terms of the distance separating them and in terms of their ability to describe positions relative to each other rather than relative to the position of the speaker. In a text describing the opposite ends of a small new house, *alogodi gogi* 'over.there-side DEM-LOC' was used to describe the upper end and *idogodi gogi* 'down.there-side DEM-LOC' to describe the lower end [House 013-14]. The two sides are entered from opposite ends of the structure and there would probably be less than four feet difference in elevation at the extreme ends.

At least one of these spatial deictics can be extended to use as a temporal deictic as in the expression *salele elö alogogi* 'week other over.there-LOC' to refer to either last week or next week.

3.3.8.2 Temporal deictics

Temporal deictics in Edolo indicate distance from the present without indicating direction of distance, that is, past or future. *Ayo*, for example, can have the meaning of either 'tomorrow' or 'yesterday'. Direction of distance from the present is determined by the tense of the final verb. *Walio* is used for both 'today' and 'now'. It can be modified to be more specific as in *walio gogifali* 'today DEM-LOC-INTNS' or 'right now'. Distance up to four days from the present can be indicated as follows: *ayo* '1 day removed', *gahada* '2 days removed', *gomo gahada* '3 days removed', and *gomoie gahada* '4 days removed'. It seems apparent that the terms for '3 days removed' and '4 days removed' are morphologically complex and built on the term for '2 days removed' but no meaning has been discovered to date for *gomo* nor any relationship to any other morphemes, including the number terms. *Gomo* is marked with genitive case in the term for '4 days removed', *gomo-ie gahada*.

PHRASE STRUCTURE

4.1 Introduction

In considering phrase structure I utilize, to a greater degree than elsewhere, the theory of Government and Binding (also called Principles and Parameters Theory). In keeping with the theory I consider the clause here as an inflectional phrase (IP). In addition to IP, the structure of NP, VP, and PP are posited. Neither Adjective Phrase (AP) nor Numeral Phrase (NumP) are considered to be constituents in Edolo.

Most of the data used to illustrate the analysis here is either from elicited examples or is extrapolated from models in the corpus. Most of the extrapolated data is used in exemplifying the NP, and mostly for the purpose of simplifying the perception of patterns on the part of the reader. Another reason for the extrapolation, and the lack of contextual examples, is the heavy use of zero anaphora in Edolo discourse. This pattern is apparently followed also in Kaluli, another Bosavi family language, and my observations for Edolo are very consistent with, and well summarized in, the following comments from Schieffelin:

Kaluli allows a great deal of deletion and ellipsis in all genres of talk. Utterances may consist of a single verb, or a verb with one or more other sentence constituents. When a person opens a discourse all major NPs are usually specified, but if one NP does not change, and there is no likelihood of ambiguity, that NP will probably not be repeated (1985:527).

Three-constituent utterances, especially those with full nouns expressing agent and object, are relatively infrequent in everyday conversational discourse (1985:545).

This "grammatical taciturnity" was illustrated in a situation regarding taking photographs of Edolo people. One man reported to others who could not hear, my statement that people who had already gotten a picture couldn't get another by saying, *nida made*

nimolö wabu 'get-PAST-DEF NEG get-FUT EV.hear', or '(those who) got (a picture) will not get (another one), (he) said' [Sentconv 025].

In addition to considering each of the phrase types mentioned above, a final section is included (§ 4.5) where the parameters are summarized and an attempt is made to collapse the phrase structure rules into one schema. That this collapsing is possible is one of the main principles of the X-bar Theory module of GB.

4.2 Noun phrase

Examples (44) through (56) illustrate the types of noun phrases discovered in Edolo.

(44)	<i>Yone</i>	'John'
(45)	<i>sugua</i>	'pig'
(46)	<i>sugua gowe</i>	'pig this'
(47)	<i>sugua yabui odoa</i>	'pig black some'
(48)	<i>sugua yabui gowe</i>	'pig black this'
(49)	<i>sugua äüda</i>	'pig two'
(50)	<i>sugua edefade</i>	'pig big'
(51)	<i>sugua edefade äüda</i>	'pig big two'
(52)	<i>nïe sugua</i>	'1s-GEN pig'
(53)	<i>nïe sugua goda</i>	'1s-GEN pig this-DEF'
(54)	<i>nama gähë gafea</i>	'shovel new six'
(55)	<i>nïe fagulo gähë falei</i>	'1s-GEN clothing new white'
(56)	<i>ëfë aulo daiya gagowe</i>	'vine bridge on that'

Considering the phrases given in examples (44) through (56) a surface structure rule such as [1] can be posited:

[1] NP → (Gen) N (qual) (color) (size) (quant) (PP) (Det)

The NP expansion in [1] is rather artificial, however, from a pragmatic standpoint. It is quite rare for a NP to have more than three constituents. When I elicited the phrase for 'my new white dress', in example (55), there was quite a bit of discussion as to the ordering of the last two modifiers. Additionally, the ordering of PP is uncertain, and there is, in fact, no evidence in the corpus for PP within NP. Postpositional phrases are not common in Edolo, most nominal relations being indicated by case marking. While I believe it is grammatical to include a PP within NP, and to expand maximally the NP, I propose a simplified surface structure rule as in [2]. No Adjective Phrase or Numeral Phrase constituents are posited.

[2] NP → (Gen) N (Adj) (Det)

With the exception of Gen, the NP can be considered head-first. This head-first ordering is also seen in relative clauses, as in examples (57) through (60).

- (57) *sugua yabui amo* 'the pig that is black'
 pig black that
- (58) *sugua dolöea meli amo* 'the pig that the man saw'
 pig male-ERG see-PAST that
- (59) *suguaea dolö mihi amo* 'the pig that bit the man'
 pig-ERG male bite-PAST that
- (60) *sugua iloloba asi amo* 'the pig that ran to the bush'
 pig bush go-PAST that

Example (57) might be better regarded as a simple NP, 'that black pig', rather than as a noun followed by a relativized descriptive clause. The pro-form *amo* seems to be able to function either as a determiner or as a relative pronoun. As a relative pronoun, *amo* could

be analyzed as occurring in the position of the relativized NP in D-structure and being postposed at S-structure, that is, an embedded clause. Thus, ignoring example (57), a S-structure representation for examples (58) through (60), showing a co-indexed movement trace and bracketed constituents, could be posited as in (61) through (63).

- (61) [*sugua* [[*dolöea* t_i *melì*]_{IP} *amo*]_{CP}]_{NP} 'the pig that the man saw'
 pig male-ERG see-PAST that
- (62) [*suguaea* [[t_i *dolö mihi*]_{IP} *amo*]_{CP}]_{NP} 'the pig that bit the man'
 pig-ERG male bite-PAST that
- (63) [*sugua* [[t_i *iloloba asi*]_{IP} *amo*]_{CP}]_{NP} 'the pig that ran to the bush'
 pig bush go-PAST that

Alternatively, it could be considered that Edolo utilizes a gap strategy for relative clauses, with *amo* simply a determiner here, that is, using incorporated clauses. In that case, examples (58) through (60) would have a structure as in (64) through (66), again showing bracketed constituents and, in this analysis, the co-indexed head and gap.

- (64) [*sugua*_i [*dolöea* \emptyset_i *melì*]_{IP} *amo*]_{NP} 'the pig that the man saw'
 pig male-ERG see-PAST that
- (65) [*suguaea*_i [\emptyset_i *dolö mihi*]_{IP} *amo*]_{NP} 'the pig that bit the man'
 pig-ERG male bite-PAST that
- (66) [*sugua*_i [\emptyset_i *iloloba asi*]_{IP} *amo*]_{NP} 'the pig that ran to the bush'
 pig bush go-PAST that

I am not currently aware of any facts of the language that provide a principled basis for choosing between these analyses, but I consider it probable that further research may provide such a basis. For the present, I consider the latter analysis, illustrated in (64)

through (66), to be the simpler analysis, not requiring movement of *amo*, and posit IP as a constituent of NP in the description that follows. This incorporation is apparently the more common strategy in SOV languages.

Turning to the application of X-bar theory, the constituents of the NP can be posited. Spec of NP is Determiner, so Spec follows N'. Adjuncts may precede N' (if Gen) or follow N' (if PP or IP). It might be that Gen should be considered to follow N' at D-structure, being moved at S-structure, so that the NP would be consistently right-branching, but I leave this without either asserting or formalizing it. Assuming Adjective to be Comp, NP is head-first. If it is granted that the Adjunct starts out following N', the NP can be summarized as in [3] through [5]. The syntactic structure of examples (48) and (55), after the movement of Gen (if such is posited), are seen in Figure 7.

[3] NP → N' (Det)

[4] N' → N' (Gen or PP or IP or Adjective)

[5] N' → N

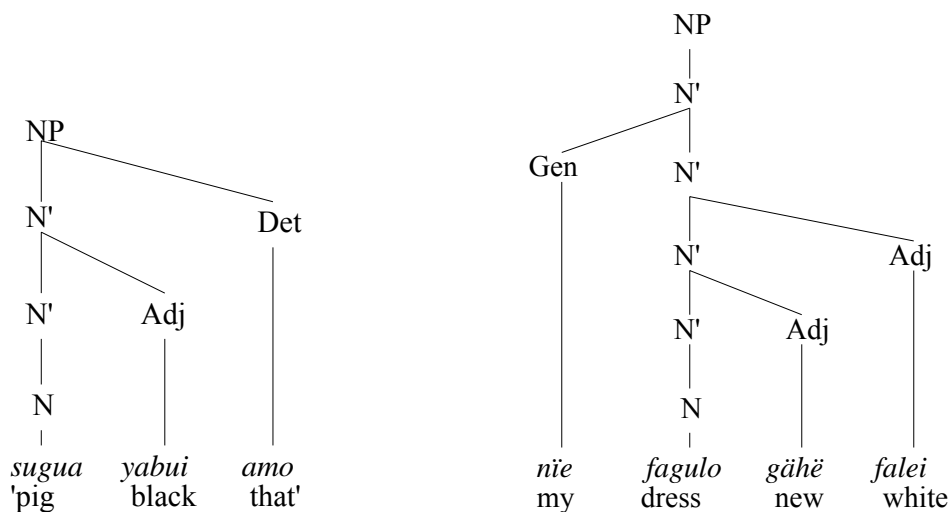


Figure 7. NP syntactic structures

Distributional differences are based on the main noun class distinction evident in Edolo, one of animacy. The distinction is found in which of the existential verbs they use. Inanimate nouns use a form of *di* 'lie', while animate nouns use a form of *sV* 'sit'. Animate nouns can also be divided into common and proper classes. These noun classes can be illustrated as in Figure 8. Some possible theta grids, reflecting the animacy class distinction, and the common noun/proper noun distinction, are illustrated in Figure 9.

$\begin{bmatrix} \textit{igi}: \text{'stone'} \\ +N \\ -\text{Anim} \\ +[\text{ ___ } (\text{Det})] \end{bmatrix}$	$\begin{bmatrix} \textit{Yone}: \text{'John'} \\ +N \\ +\text{Anim} \\ +[\text{ ___ }] \end{bmatrix}$	$\begin{bmatrix} \textit{sugua}: \text{'pig'} \\ +N \\ +\text{Anim} \\ +[\text{ ___ } (\text{Det})] \end{bmatrix}$
---	--	---

Figure 8. Noun classes

$\textit{igi}, \text{'stone'} \text{ N:}$	(NP)	$\textit{Yone}, \text{'John'} \text{ N:}$	$\textit{sugua}, \text{'pig'} \text{ N:}$	(NP)
$-\text{Anim}$	Gen	$+\text{Anim}$	$+\text{Anim}$	Gen

Figure 9. Noun theta grids

4.2.1 Compound nouns

Compound nouns consist of two juxtaposed nouns. Such compounds appear to pattern as a single noun as far as their fitting into a noun phrase as well as their being marked for case. In many cases one noun is modifying the other. In some instances a Head+Modifier order is seen, such as the following, in which the second constituent is a more restricted form and the first comparable to a classifier:

<i>ödä Diao</i>	'water Diao'	<i>malö dubo</i>	'child infant'
<i>haea ilagisë</i>	'bird ilagisë'	<i>nuba fayedilo</i>	'snake fayedilo'

Other instances show a Modifier+Head order, such as:

<i>udia malö</i>	'female child'	<i>dolö malö</i>	'male child'
<i>Goeli mösö</i>	'Huli house'	<i>Usubu gübido</i>	'Usubu spring'
<i>emo giwi</i>	'leg bone'	<i>Diao gau</i>	'Diao hill'

There are also compounds in which the components have an equal basis such as *udia dolö* 'female male', which is used to refer to men and women together.

4.3 Verb phrase and inflectional phrase

Examples (67) through (78) illustrate the basic types of clauses found to date in Edolo.

- (67) *sege masebe* 'Rain is coming'
rain come-ASP [Sentence 074]
- (68) *alì ödä Giwagi dala aligi* 'We came straight to
1d water Giwa-LOC straight.to arrive-PAST the Giwa river'
- (69) *neda Dodomona aha* 'I am going to Dodomona'
descend Dodomona go-ASP [Sentence 196]
- (70) *ne dibälä moholö* 'I will go with you'
1s 2s-ACCOMP go-FUT [Sentence 027]
- (71) *dia hedabola säi* 'You spoke correctly'
2s-ERG good-? say-PAST
- (72) *na molö gobesa* 'I am cooking food'
1s-ERG food cook-ASP [Sentence 084]

- (73) *na siba gai sagai* 'I planted bananas before'
1s-ERG before banana plant-PAST [Sentence 154]
- (74) *dolöea ügülögali molö iäsebe* 'The man is giving food to the dog'
male-ERG dog-DAT food give-ASP [Sentence 098]
- (75) *ea edale ne nufi* 'He hit me first'
3s-ERG first 1s hit-PAST [Sentence 207]
- (76) *Goeli mösöa nudusalea wabu* 'The Hulis are fighting (I hear)'
Huli house-ALL fight-ASP EV.hear [Sentence 144]
- (77) *Goeli mösöa nudusalea* 'The Hulis are fighting'
Huli house-ALL fight-ASP [Sentence 145]
- (78) *ilia mösö gähë olaha nea* 'They are building a new house'
3p-ERG house new build-ASP stand-?

The surface structure of examples (67) through (78) is summarized in [6].

[6]	S →	NP V (67,77) NP PP V (68) NP Loc (69) NP Accomp (70) NP Adv (71) NP NP V (72) NP Time NP V (73) NP NP _I NP _D V (74) NP Adv NP V (75) NP V Evid (76) NP NP V Aux (78)
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4.3.1 Verb phrase

Looking at the structure of the VP first, their surface structures, from examples (67) through (78), can be summarized as in [7].

$$[7]VP \rightarrow \left. \begin{array}{l} \text{V} \quad (67, 76, 77) \\ \text{PP V} \quad (68) \\ \text{Loc V} \quad (69) \\ \text{Accomp V} \quad (70) \\ \text{Adv V} \quad (71) \\ \text{NP V} \quad (72, 78) \\ \text{Time NP V} \quad (73) \\ \text{NP}_{\text{IO}} \text{NP}_{\text{DO}} \text{V} \quad (74) \\ \text{Adv NP V} \quad (75) \end{array} \right\}$$

Time, case marked NPs (Accomp, Loc), and PP are considered as adjuncts. Adv is posited as Spec of VP so Spec precedes V'. NP_{IO} and NP_{DO} are posited as Comp, which also precede V', so VP is head-last. The VP can be summarized as in [8] through [10].

$$[8] \quad VP \rightarrow (\text{Adv}) V'$$

$$[9] \quad V' \rightarrow (\text{Time or Accomp or Loc or PP or NP}_{\text{IO}} \text{ or NP}_{\text{DO}}) V'$$

$$[10] \quad V' \rightarrow V$$

It can be observed that there is an adjacency problem for case assignment here. If both NP_{IO} and NP_{DO} precede V, NP_{IO} is not adjacent to its case assigner, V. The same adjacency problem exists for NP_{Su} and INFL, as posited in § 4.3.2, that is, NP_{Su} is not adjacent to its case assigner, INFL. Without elaborating on it, I will suggest here that adjacency is not a requirement for case assignment in Edolo. This suggests, further, the possibility that adjacency should be regarded as a language-specific parameter that may or may not be required for case assignment.

There is variation in the order of constituents both within the VP itself and within the clause (IP), although the function of the variant order has not been determined. The

examples given above, in (67) through (78), are considered to represent the basic surface structure order as in [11].

[11] NP_{Su} Adjunct NP_{IO} NP_{DO} V

Some of the varying orders are illustrated in examples (79) through (85). See also § 5.2 regarding variant orders and movement.

- (79) *beba adugi salaha* '(I) am putting the book in the bag'
 book string.bag-LOC fill.up-ASP [Sentence 175]
- (80) *baile dü gui hësëmabio* 'Do not drop your sugarcane
 sugarcane residue here drop-FUT.PROH rubbish here' [Sentence 177]
- (81) *na e baialaea nufi* 'I hit him with a stick'
 1s-ERG 3s club-INSTR hit-PAST [Sentence 165]
- (82) *na adu die asi* 'I made a string bag for you'
 1s-ERG string.bag 2s-BEN weave-PAST [Sentence 171]
- (83) *e na nufi* 'I hit him'
 3s 1s-ERG hit-PAST [Sentence 207]
- (84) *ügülögali dolöea molö iäsebe* 'The man is giving food to the dog'
 dog-DAT male-ERG food give-ASP [Sentence 099]
- (85) *dolöea ügülö malöma i* 'The man gave the dog to the
 male-ERG dog child-IO give-PAST child' [Sentence 107]

The first four, examples (79) through (82), have an Adjunct between the NP_{Obj} and the verb. The last three, examples (83) through (85), manifest core argument orders as follows:

DO S V (83)

IO S DO V (84)

S DO IO V (85)

The alternative orders seem to be a matter of fronting through WH Adjunction. The function of the movement is not known but is suspected to be related to topicality or focus.

Distributional differences in the verbs are based on transitivity. These verb classes are illustrated in Figure 10. Some possible theta grids are illustrated in Figure 11, repeated from § 3.2.2.1, which includes the phonologically empty copula used in equative and descriptive clauses.

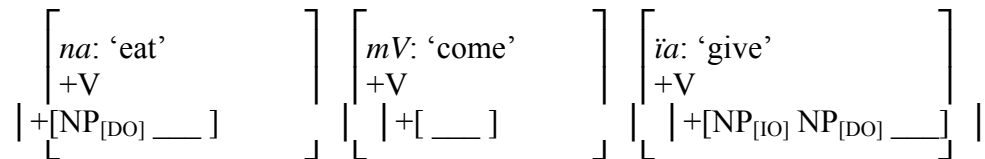


Figure 10. Verb classes

<i>na</i> , 'eat': V	<table style="border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">NP</td></tr> <tr><td style="padding: 2px 10px;">Agt</td><td style="padding: 2px 10px;">Thm</td></tr> </table>	<u>NP</u>	NP	Agt	Thm	<i>mV</i> , 'come': V	<table style="border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td></tr> <tr><td style="padding: 2px 10px;">Agt</td></tr> </table>	<u>NP</u>	Agt				
<u>NP</u>	NP												
Agt	Thm												
<u>NP</u>													
Agt													
<i>ää</i> , 'give': V	<table style="border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">NP</td><td style="padding: 2px 10px;">NP</td></tr> <tr><td style="padding: 2px 10px;">Agt</td><td style="padding: 2px 10px;">Ben</td><td style="padding: 2px 10px;">Thm</td></tr> </table>	<u>NP</u>	NP	NP	Agt	Ben	Thm	<i>sV</i> , 'sit': V	<table style="border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">(NP)</td></tr> <tr><td style="padding: 2px 10px;">Exp</td><td style="padding: 2px 10px;">Loc</td></tr> </table>	<u>NP</u>	(NP)	Exp	Loc
<u>NP</u>	NP	NP											
Agt	Ben	Thm											
<u>NP</u>	(NP)												
Exp	Loc												
\emptyset , 'BE': V	<table style="border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">Adj/NP</td></tr> <tr><td style="padding: 2px 10px;">Exp/?</td><td style="padding: 2px 10px;"></td></tr> </table>	<u>NP</u>	Adj/NP	Exp/?		<i>a</i> , 'go': V	<table style="border-collapse: collapse;"> <tr><td style="padding: 2px 10px;"><u>NP</u></td><td style="padding: 2px 10px;">(NP)</td></tr> <tr><td style="padding: 2px 10px;">Agt</td><td style="padding: 2px 10px;">Goal</td></tr> </table>	<u>NP</u>	(NP)	Agt	Goal		
<u>NP</u>	Adj/NP												
Exp/?													
<u>NP</u>	(NP)												
Agt	Goal												

Figure 11. Verb theta grids

4.3.2 Inflectional phrase

Returning now to the structure of the clause (also referred to as S, or IP), the surface structures given in [6] above can be summarized as in [12], where VP is substituted for the individual constituents of the verb phrase.

[12] $S \rightarrow NP VP (Aux) (Evid)$

I will suggest here that Aux is a constituent consisting of Tense and Agreement that sometimes has a surface manifestation as an auxiliary, as in example (78) above. Further, I consider it likely that the Evidential morpheme should be considered obligatory with a zero morpheme used in some instances, and posit both Aux and Evid from [12] as manifestations of INFL, using the terminology of X-bar Theory. Having said that, the structure of IP (INFLectional Phrase = Sentence) can be posited. NP_{Su} can be regarded as Spec of IP. VP is considered to be Comp of IP so IP is head-last. No Adjunct for IP has been identified to date. This can be summarized as in [13] through [15].

[13] $IP \rightarrow NP I'$

[14] $I' \rightarrow VP I'$

[15] $I' \rightarrow I$

The syntactic structures of IP and VP, from examples (67), (72), and (74), are illustrated in Figures 12 through 14, respectively. The manifestation of Evid in INFL is not shown. See § 4.3.1 for some brief comments regarding case assignment and apparent violations of adjacency in the following figures.

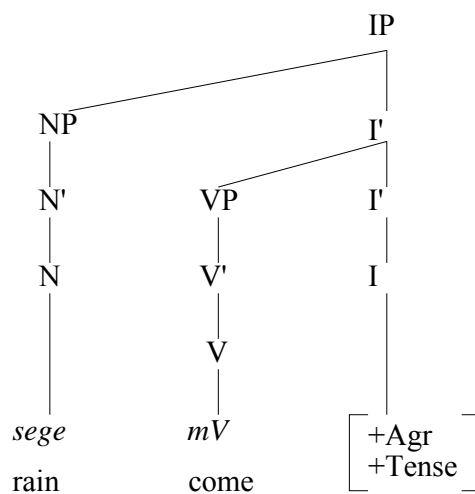


Figure 12. IP syntactic structure

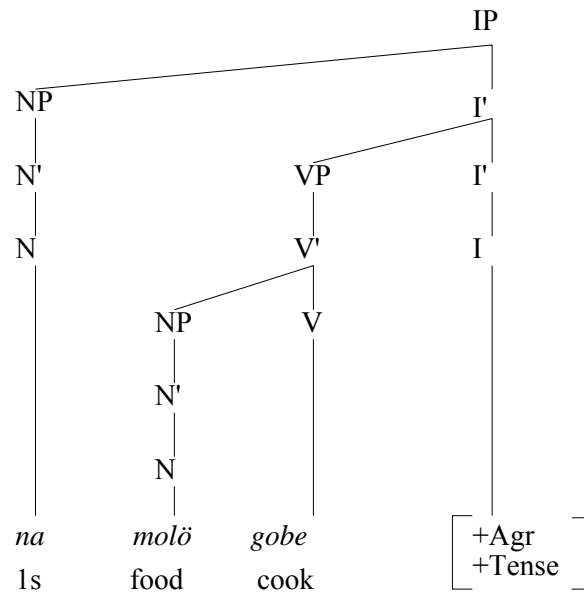


Figure 13. IP syntactic structure

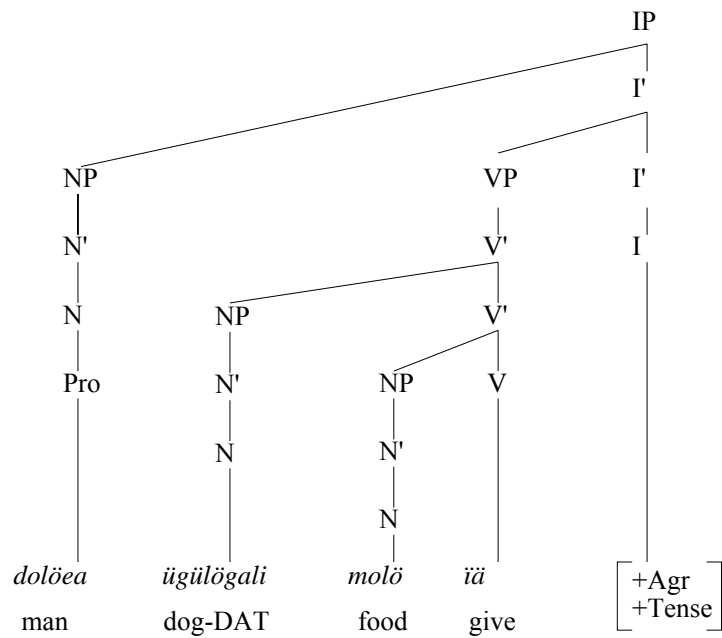


Figure 14. IP syntactic structure

4.4 Postpositional phrase

While the postpositional phrase is not widely used in Edolo it is not difficult to demonstrate the order of constituents within the phrase as seen in the following examples (86) through (90):

(86)	<i>aulo daiya</i>	'bridge on'	[Bosavi 016]
(87)	<i>fudu daiya</i>	'sago.limb on'	[Sago 006]
(88)	<i>Bugulegi dala</i>	'Bugule-LOC straight.to'	[Payback 030]
(89)	<i>Wamagulagi dala</i>	'Wamagula-LOC straight.to'	[Snake 014]
(90)	<i>mösö siliba hawa</i>	'house bottom.side under'	[Bosavi 011]

There is no evidence for either Spec or Adjunct constituents of PP. Considering NP to be Comp of PP, the structure can be stated as in [16] through [18]. NP precedes P' so PP is head-last.

[16] PP → P'

[17] P' → NP P'

[18] P' → P

4.5 X-phrase

I repeat here, renumbered as [19] through [30], the structures posited for each of the phrase types considered.

[19] NP N' (Det)

[20] N' N' (Gen or PP or IP or Adjective)

[21] N' N

[22] VP (Adv) V'

[23] V' (Time or Accomp or Loc or PP or NP_{IO} or NP_{DO}) V'

[24] V' V

[25] IP NP I'

[26] I' VP I'

[27] I' I

[28] PP P'

[29] P' NP P'

[30] P' P

The X-Bar parameters can be collapsed for three of the phrase types considered; IP, VP, and PP, as in [31] through [33].

[31] XP → Spec X'

[32] X' → Comp X'

[33] X' → X

For categories IP, VP, and PP, Spec precedes X' (no relevant data for PP), while for NP, Spec follows X'.

Spec for IP is NP_{Su}

Spec for VP is Adv

Spec for NP is Det

Except for NP all categories are head-last. NP is head first and has adjuncts which both precede and follow, at least at S-structure.

Comp for IP is VP

Comp for VP is NP_{IO} or NP_{DO}

Comp for PP is NP

Comp for NP is Adjective

Adjunct for VP is Time, PP or Case-marked NP

Adjuncts for NP are Gen (precedes N') and PP or IP (follow N')

No Adjunct found to date for IP and PP

CLAUSE STRUCTURE

5.1 Introduction

Much of what one might expect to find under the heading of clause structure has already been commented on in other sections in discussing the pertinent morphology, particularly some of the clause-level clitics considered in § 3.3.5. In addition, considering the clause as an inflectional phrase (IP), it is included in the description of phrase structure in § 4.3.2. As a result, the discussion that follows includes cross-references to other sections and some information that is repeated, for ease of reference. Furthermore, there are many areas of clause structure and clause interrelationships that remain to be analyzed.

5.2 Word order

The basic typological word order of Edolo is SOV. SOV languages are often considered simply as verb-final, since they exhibit a fair degree of flexibility in the order of the pre-verbal arguments. The basic clause order has already been elaborated on in [11] from § 4.3.1, and is repeated here as [34].

[34] NP_{Su} Adjunct NP_{IO} NP_{DO} V

Some examples with variant word order are also given in § 4.3.1. There seems to be quite a bit of freedom in word order with the nominal case marking making grammatical relations evident, even when word order is changed. Movement seems to primarily consist of fronting of NPs, either within VP or IP, with verb-final ordering being fairly rigid (see examples (79) through (85) in § 4.3.1). The motivation for the movement evidenced has not been determined to date. The only exception observed to date to the

verb-final order, that is, exceptional instances of NPs following the verb, seems to be amplifications or clarifications, as in examples (91) and (92).

- (91) *gähëö dagala giai wabu, gähëö doba*
pandanus break-SIM cook-PAST EV.hear pandanus doba

Getting pandanus (they) cooked it , doba pandanus. [Bluff 005]

- (92) *haea hamola ami salea, Gugubalebe mia ami*
bird do-SIM there sit-? Gugubalebe base-ALL there

Becoming a bird there (he) is, there at the base of Gugubalebe. [Bluff 032]

5.3 Grammatical relations

Grammatical relations are indicated primarily by nominal case marking as discussed in § 3.2.1.2. Core arguments are not indexed on the verb. Edolo follows an ergative/absolutive system morphologically in marking core nominals. The system type (ergative/absolutive or nominative/accusative) has to do with the treatment of the three core arguments; the subject and object of a transitive verb, and the subject of an intransitive verb. To simplify discussion, the subject of a transitive verb is usually designated A, for Actor or Agent, the subject of an intransitive verb is designated S, for Subject, and the object of a transitive verb is designated either O, for Object, which I will use here (Dixon 1979:61; Andrews 1985:68), U for Undergoer (Foley 1986:103), or P for Patient (Comrie 1989:110-111). The typical nominative/accusative system treats A and S alike, referred to as nominative, and distinguishes them from O, referred to as accusative. The typical ergative/absolutive system, like Edolo, distinguishes A, referred to as ergative, from S and O, referred to as absolutive, which it treats alike. In Edolo, the ergative case marker is *-ea* while the absolutive case is unmarked (see § 3.2.1.2). Both

nouns and pronouns follow this pattern. While Dixon claims that "there is no language with 100% ergative morphology" (1979:71) I have not observed any definitive breaks from ergative morphology to date, with the possible exception of some of the emphatic pronouns (see § 3.3.1.1). I am unable to address the matter of syntactic ergativity at this point in my analysis and understanding of Edolo, but I note here Dixon's observation that "it appears that there are no languages that are FULLY ergative, at either the syntactic or the morphological level" (1979:63, emphasis his-JG).

In its application to chained clauses in Edolo, the ergative/absolutive system requires a bit of further definition. In a series of chained clauses, with only one set of overt core nominals, the ergativity marking is determined by the first verb encountered and not by the final verb. This is seen in examples (93) and (94), repeated here from § 3.2.1.2.1.

- (93) *nili mala molö mai*
1p come-SIM food eat-PAST

Coming we ate food.

[Sentence 243]

- (94) *edo amea gähöö gugi gaula fedei*
father that-ERG pandanus mixture hold-SIM ascend-PAST

That father, carrying pandanus mix, went up.

[Bluff 029]

In example (93), the absolutive subject pronoun agrees with the intransitive medial verb 'come', not with the transitive final verb 'eat'. In example (94), the ergative NP subject agrees with the transitive medial verb 'hold', not with the intransitive final verb, 'ascend'.

In terms of Case Theory of GB, the pattern described here would seem to indicate that medial verbs have a finite INFL that is able to assign case to the subject NP since its surface case, at least, can be determined by a medial verb.

5.4 Topic and focus

There are varying word orders, whose function is suspected to lie in the area of topicality or focus, as discussed briefly in §§ 4.1, 4.3.1, and 5.2. Not enough is presently understood about topicality and focus in Edolo to make any definitive statements. As mentioned in § 3.2.2.2.5 there is a morpheme *-da*, glossed 'DEF' here and elsewhere, that seems to mark something like definiteness, or perhaps topicality or focus. The function of *-da* is not well understood. It is used normally on a syntactic subject, either transitive, intransitive or, as in example (95), equative.

- (95) *ne-da* Aememelë, *die* malö *we-da* Dugaeamemelë
 1s-DEF Aeme-new.info 2s-GEN child here-DEF Dugaeme-new.info

I am Aeme, your child here is Dugaeme. [Ilua 098]

It can be used on a noun in a very abbreviated utterance, like *naibi-da* 'knife-DEF', which I heard one boy say to another, who had forgotten his knife on the trail. It seems to be equivalent to something like 'what about your knife?!'. In a similar situation, upon the disappearance of Yubi, a small boy under the care of his two older sisters, the older sister said to the younger, *Ilina, Yubi-da* 'Ilina, Yubi-DEF', or 'Ilina, what about Yubi?!' [Sentconv 018].

5.5 Clause types

Figure 15 and example (96), repeated from § 3.2.2.2, together illustrate the three main clause types in Edolo; subordinate, medial, and final. These terms are also used of verb types and, in fact, the verb is often the only overt constituent of the clause. Much of

the ordering restriction for these clause types is implied in the labels used for them. Final verbs are sentence-final and can be inflected in all categories. Subordinate clauses are often used to express logical and temporal relations. They are never marked for illocutionary force, being always declarative (Foley 1986:199-200). Subordinate clauses do not seem to be marked for evidential type. Although Foley claims that the most common usage of

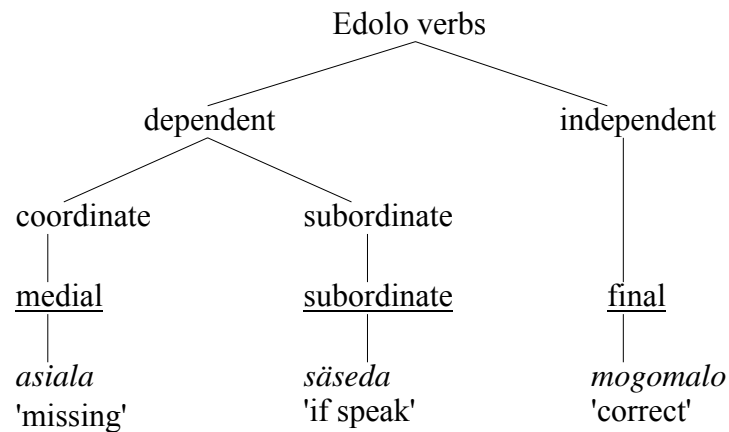


Figure 15. Clause (and verb) types

- (96) *na* *asiala* *säседа* *dia* *mogomalo*
 1s-ERG miss-SIM say-COND 2s-ERG correct-FUT.IMP
 medial verb subordinate verb final verb

If I speak incorrectly, you correct (me)

[Sentence 040]

subordinate verbs in Papuan languages is in tail-head linkage (1986:200), my observations in Edolo point more to medial verbs as the more common form that tail-head linkage takes. In tail-head linkage, the preceding sentence, or at least the last part of the it (the tail), is recapitulated in the beginning (the head) of the following sentence. When this is a

simple recapitulation, the medial verb seems to be the more commonly used type, as illustrated in the two sentences of example (97) (see also § 3.3.2.2).

- (97) *Haimagoea ne ägula ödä Sobeao aulo amo dögëσιο.*
 Haimago-ERG 1s carry-SIM water Sobeao bridge that cross-EV.see

Haimago carrying me, we crossed that Sobeao river bridge. [Bosavi 017]

Dögëla älämadi ifosisio
 cross-SIM side release-BEN-PAST

Crossing to the other side, (he) left. [Bosavi 018]

Medial verbs occur in the middle of sentences, as their name implies. Like subordinate verbs, medial verbs are never marked for illocutionary force. Unlike subordinate verbs, however, their illocutionary force is determined by that of the final verb. This is illustrated by comparing the common imperative clause, *gaula misie* 'hold-SIM come-PRES.IMP', or 'bring (it)', with the declarative clause, *na gaula misi* '1s hold-SIM come-PAST', or 'I brought (it)'. In the former, the medial verb *gaula* 'hold-SIM' also has the imperative illocutionary force of the final verb, while in the latter, the same form has a declarative illocutionary force. Medial verbs are inflected for relative tense, but are not inflected for status or evidential type. These distinctions are summarized in Table 27.

Table 27.--Clause type and morphology correlation

	Inner Operator			Outer Operator			
	Asp	Dir	Mod	Ten	Sta	IF	Evid
Medial	X	X	X	(X)			
Subordinate	X	X	X	X	X		
Final	X	X	X	X	X	X	X

Equative and descriptive clauses do not have an overt verb. As mentioned and exemplified in § 3.2.2.2.2.5 and § 3.2.3, these equative and descriptive predicates sometimes occur with verbal morphology. Example (95) above also illustrates verbal morphology on a predicate nominal. There is some evidence that equative and descriptive clauses can optionally occur with an existential verb, that is, one of the postural verbs, 'sit', 'stand', or 'lie'.

Clause-level operators have, for the most part, been discussed as verbal morphology in § 3.2.2.2 since they are usually attached to the verb. Those clause-level operators recognized as clitics, including conjoining morphemes, have been considered in §§ 3.3.5.1-3.3.5.2 of the word level description.

DISCOURSE CONSIDERATIONS

6.1 Text genres

Some marked differences in text genres have been observed in spite of the fact that not a lot of analysis has been done at the discourse level. The different genres in which a formal distinction has been noted are narrative and procedural. In Table 1 of § 1.4, narrative texts are further divided into historical narrative and traditional narrative. These two types of narrative texts have been differentiated by their content only, no formal distinction being observed between them. In the remainder of the discussion here I use the term narrative to include both types of narrative texts. No skewing between surface form and notional structure in discourse has been noted to date.

Procedural texts are recognizable by their surface structure semantic content. There are also two means by which they can be recognized formally. Nearly all of the sentences in a procedural text have a final verb that is inflected with the irrealis marker, *-lo* (see § 3.2.2.2.3). The irrealis marker in these texts seems to carry the idea of 'abilitative' or 'it can be done like this'. The other formal distinction in procedural texts is the relative dearth of overt NP subjects. Even for a language like Edolo, where zero anaphora is so common (see § 4.1 and § 6.2), the distinction is evident.

One of the texts in the text database, a procedural text about the making of sago flour from the sago palm, illustrates these observations well (see Appendix A). In this short text of 14 sentences, twelve of them end with a final verb marked with the irrealis suffix, *-lo*. The other two sentences comprise the formulaic closing of the text. As far as overt NP subjects are concerned in this same text, there is no subject expressed until mid-way through the fourth sentence of the text, given in example (98).

(98) *fudu dogala negei diëgi udiaea fudu amo gaula*
 limb remove-SIM put-PAST lie-?-LOC female-ERG limb that hold-SIM

alahilä galula däilämolö amo hamogisegi dolöea masilo
 go-SEQ join-SIM beat-FUT that arrange-ASP-LOC male-ERG clean-IRR

After removing and piling the limbs, after a woman arranges [Sago 004]
 them, carrying those limbs and going and joining them where
 sago will be beaten, a man can clean (the trunk).

It is only at this point in the text, where tasks that are gender-specific in Edolo culture are delineated, that any overt subject is expressed. This procedural text was given by a man and, presumably, from a man's point of view, which may have an effect on overt NP selection. Both non-specific and male-specific tasks are stated prior to the introduction of the first overt subject. At the point where a female-specific task is detailed the subject, *udiaea* 'female-ERG', is expressed, and is the subject of the five following verbs (see § 6.2). For the final verb of example (98), *masilo* 'clean', or perhaps 'de-bark', a male-specific task, *dolöea* 'male-ERG' is introduced, for the first time overtly, as the subject. The next overt subject, *udiaea* 'female-ERG', is midway through the sixth sentence, as in example (99),

(99) *Gälähilä guduloea gudula agui diëgi*
 split-SEQ pound-NR-INSTR pound-SIM finish-PAST be-SUB

udiaea adu ägula malahilä dami amo neala
 female-ERG string.bag carry-SIM come-SEQ sago.pulp that get-SIM

extensive, so explicit marking was often not helpful. Looking for agreement marking, and being aware of Foley's claim for Papuan verbs that "subject agreement is nearly universal and object agreement is very common" (1986:12), I found, nevertheless, only very limited subject agreement marking (see § 3.2.2.1), and no object agreement marking. At that point, I certainly expected to find evidence of a switch-reference system, common in Papuan languages, but I never found any indication that switch-reference is marked on Edolo verbs, either. Eventually, I did, however, discover a pattern, through text analysis, that seems to be the system of participant reference used in Edolo.

The system of participant tracking that evidences itself, in narrative text, is that an overt subject continues to function as subject of succeeding clauses without being restated. The subject only changes when it is expressly stated. New participants are usually introduced by a NP and are later referred to by a pronoun. The same system seems to hold generally for object NPs as well. The pattern seems to be followed in procedural texts, also, although the initial subject may not be stated, as in example (100), repeating example (98) from § 6.1.

- (100) *fudu dogala negei diëgi **udiaea** fudu amo gaula*
 limb remove-SIM put-PAST lie-?-LOC female-ERG limb that hold-SIM
- alahilä galula däilämolö amo hamogisegi **dolöea** masilo*
 go-SEQ join -SIM beat-FUT that arrange-ASP-LOC male-ERG clean-IRR

After removing and piling the limbs, after a woman arranges [Sago 004]
 them, carrying those limbs and going and joining them where
 sago will be beaten, a man can clean (the trunk).

No overt subject has been stated in the text prior to *udiaea* 'female-ERG', in example (100), so the subject of the first verbs is never explicitly marked. The NP *udiaea*, however, functions as the subject of all the verbs following it, until the next overt subject

dolöea 'male-ERG' indicates a change of subject. In fact, it seems to be the case that an overt subject explicitly signals a change of subject. Knowledge of this system of participant reference is helpful in interpreting what might be otherwise considered ambiguous sentences. In one particular text (see Appendix B) two succeeding sentences, as abbreviated in examples (101) and (102), have an overt NP subject, *dolö afüdea* 'man one-ERG' or 'a man'.

- (101) *amalamu sefolalea dolö afüdea sähalea . . .-la säi*
 pro.verb-SIM-HAB sit-p-ASP male one-ERG say-ASP -COMP say-PAST

Always staying like that, one man said . . . [Leech2 005]

- (102) *amala säsebegi dolö afüdea sähalea . . .-la säi*
 pro.verb-COMP say-ASP-LOC male one-ERG say-ASP -COMP say-PAST

(He) saying that, one man said . . . [Leech2 006]

Both of the sentences give the quoted speech of 'a man', giving rise to the question of the co-referentiality of the two overt subjects. I believe in English it would be unacceptable to have succeeding clauses with an indefinite NP that was potentially co-referential. The second subject would have to be either a NP or a pronoun, if co-indexed with the first, or would otherwise have to be explicitly marked as non-co-referential by saying something like 'another man'. My prediction, based on the pattern of participant reference evidenced in Edolo, is that the identical indefinite NPs in examples (101) and (102) are restricted from being co-referential in Edolo, and that there is no ambiguity, a change of subject being explicitly marked. It seems that the subject of the final verb of example (101) is also the subject of the tail-head linkage at the beginning of example (102), which recapitulates the preceding clause. At that point a new subject is stated, neither co-

indexed nor co-indexable, I believe, with the overt subject of (101) or the non-overt subject of the recapitulation of (101) at the beginning of (102).

The statistical patterns of participant reference that reveal themselves in text analysis give an indication of the extent of zero anaphora. In tracking the participants in the text from which examples (101) and (102) were taken, I found 89 references to the eight different participants in the text, including quoted speech. Of those 89, 22% were full NP references, 28% were pronominal references, and 49% were zero anaphor references. If the references within quoted speech are excluded, there are 77 references, 25% of them full NPs, 18% pronominal, and 57% zero anaphora.

As mentioned above, this pattern seems to hold also for procedural texts, at least to a degree. The distinction would seem to be that no overt subject needs to be stated initially, a generic null subject serving the purpose well. It also seems possible to switch back from an overt subject to the generic null subject without explicitly marking the switch.

Participant reference in dialogue seems to function very similarly to the pattern seen in narrative texts, that is, with many empty NPs. For example, in a conversation about an individual coming to the village, a person might ask the question, *misile* 'come-PAST-YNQM', or 'did (he) come?', to which another person might respond, *misi* 'come-PAST', or '(he) came'. This is consistent with my wife's observation that a person joining a conversation already in progress often has to ask for clarification of participants.

In relating the patterns discovered to GB, it becomes apparent that X-Bar Theory, and Theta Theory, will have to allow for factors beyond the sentence level in evaluating the fulfillment of syntactic requirements and theta roles.

CONCLUSION

I conclude by considering here the benefits I have derived from the present study, the interesting points of the language as it has been described, and the challenges that remain.

I quoted in Chapter 1 Ferguson's statement about the benefits of "making unspoken assumptions explicit" (Ferguson 1966:54), namely, to reveal both mistaken assumptions and assumptions that are inconsistent with one another, and to give new insights. In addition to these benefits I have found just the process of recording on paper the things I knew or suspected about the Edolo language to be a very helpful learning process. The organizing and systematizing of my assumptions has indeed given new insights. The discovery that I anticipate being the most far-reaching is the system of participant reference discussed in Chapter 6. This pattern of overtly expressing a subject or object only when it is different from the preceding subject or object was difficult to discover in the early stages of language learning, particularly with the limited agreement marking on the verb and the absence of switch-reference marking. I expect the knowledge of this system to prove very helpful as it gives a starting point for future analysis, to be either borne out or modified. Through the organizing of the nominal case marking system (§ 3.2.1.2) I learned of a possible distinction between markers that had formerly seemed synonymous, and of a new case marker that had formerly appeared to be an allomorph of another. The analysis of the system of spatial deictics, based on recurring partials (§ 3.3.8.1), has given me some clear hypotheses for later testing.

In addition to those who are already interested in Papuan languages in general, I expect that others who take the time to peruse these pages may find interesting a number

of features of the language as it has been described here. My perspective, that of a native English speaker, will probably be shared by most readers and so many features will be notable, and I trust interesting, just by their distinct difference from patterns displayed in English. Edolo is an SOV language and is quite consistent with the implicational universals normally associated with that typology (e.g. Greenberg 1966). It is postpositional, almost exclusively suffixal, and the auxiliary follows the verb. The genitive precedes the noun, while all other NP constituents follow the noun. Neither number nor gender are marked on nouns nor is gender marked on the pronouns, which occur in three persons and in singular, dual, and plural number. Edolo follows an ergative/absolutive pattern morphologically, in both nominal and pronominal core argument case marking (§ 3.3.1.1 and § 5.3). The question of syntactic ergativity remains to be answered. Evidential marking (§ 3.2.2.2.4 and § 3.3.7.2) is an areal feature in the Southern Highlands Province with its source apparently in the Engan languages. While not as well developed as the evidential system of some of the area languages (at least as presently understood), it is notably different from a great number of languages, including English. Another prominent feature of the language, which is widely used, is tail-head linkage (§ 3.3.2.2 and § 5.5). This recapitulation of a preceding sentence at the beginning of the next seems to be used quite consistently in discourse. Tail-head linkage is often a part of another feature of the language that is both wide-spread and unusual to our Indo-European intuitions, namely, clause chaining (§ 3.2.2 and § 5.5). A chained clause construction involves several minimally inflected medial verbs followed by a fully inflected final verb, all in one sentence. Reduplication, a fairly infrequent form whose function needs yet further research, follows what seems to be an unusual reduplicative pattern of repeating the first CV, ignoring an initial vowel if it is present (§ 3.2.2.2.1.3). Finally, the quantifiers (§ 3.3.4) present a system not uncommon around the world but certainly remarkable to an English speaker, at least upon first exposure. The number sys-

tem counts thirty-four body parts, beginning with the little finger of the right hand and ending with the little finger of the left hand.

I also quoted, in Chapter 3, Pike and Pike's instruction to researchers to not let what they don't know keep them from presenting what they do know (Pike and Pike 1982:12). I feel that I meet the prerequisites for following their course of instruction, having plenty that I don't know, so I have presented here what I do know, or at least suspect. Although much of the language has been analyzed, with varying degrees of certainty, there are several challenges that remain. One will be to verify or falsify the analyses that have been posited herein, a process I expect to go on regardless of the degree of certainty I feel about a given analysis. In addition to this, there are areas in which analyses are still lacking, primarily in the verbal morphology. More particularly the challenge remains to arrive at a clearer understanding of the several morphemes that I have had to gloss simply as 'aspect' (§ 3.2.2.2.1.3), and to discover a present tense marker, if there is one, which may prove to be among the morphemes just referred to. Many challenges, no doubt, remain in consideration of higher level structures that have only been briefly discussed in the present work.

I am also confident that there are challenges remaining that will prove to be surprises and I expect that is what will make the continuing process interesting. I can definitely say that the stage (or stages) of the process completed herewith have been quite profitable for me. Although the process may not have been always joyful or pleasant I trust the result will be beneficial and I am thankful for the opportunity. It is my hope that you, the reader, may find profit here as well.

APPENDIX A:

SAGO TEXT

SAGO TEXT

- (103) *Wahalo molö helësëseda wahalo aba aulo amo gomalä hamolo.*
wahalo molö helësë-seda wahalo aba au-lo amo gomalä hamo-lo
 sago food think-COND sago chop go-NR that same do-IRR

When (a person) thinks of sago food, going to chop sago is done like this.

[Sago 001]

- (104) *Mäsi ägula wää fudu gaula näbiädo gaula*
mäsi ägu-la wää fudu gau-la näbiädo gau-la
 sago.bag carry-SIM black.palmlimb hold-SIM rod hold-SIM

gudulo gaula gabi gaula awälahilä wahalo mia
gudu-lo gau-la gabi gau-la awä-lahilä wahalo mia
 pound-NR hold-SIM ax hold-SIM go-SEQ sago base-ALL

awäla aligilahilä wahalo amo abelo.
awä-la aligi-lahilä wahalo amo aba-lo
 go-SIM develop-SEQ sago that chop-IRR

Going carrying a sago bag, holding a palm husk dish, holding a rod, holding a sago hammer, holding an ax then going and arriving at the base of a sago tree, that sago tree can be chopped.

[Sago 002]

- (105) *Wahalo abala sadia idalahilä fudu dogelo.*
wahalo aba-la sadia ida-lahilä fudu doge-lo
 sago chop-SIM throw down-SEQ limb remove-IRR

Chopping the sago tree down, then the limbs can be removed.

[Sago 003]

- (106) *Fudu dogala negei diëgi udiaea fudu amo gaula*
fudu dogala-la nege-i di-ë-gi udia-ea fudu amo gau-la
 limb remove-SIM put-PAST lie-?-LOC female-ERG limb that hold-SIM

alahilä galula däilämolö amo hamogisegi dolöea masilo.
a-lahilä galu-la däilä-molö amo hamogi-se-gi dolö-ea masi-lo
 go-SEQ join-SIM beat-FUT that arrange-ASP-LOC male-ERG clean-IRR

After removing and piling the limbs, after a woman arranges them, carrying those limbs and going and joining them where sago will be beaten, a man can clean (the trunk).

[Sago 004]

- (107) *Masilahilä gälo.*
masi-lahilä gä-lo
 clean-SEQ split-IRR

After cleaning, (the trunk) can be split.

[Sago 005]

- (108) *Gälahilä guduloea gudula agui diëgi*
gä-lahilä gudu-lo-ea gudu-la agu-i di-ë-gi
 split-SEQ pound-NR-INSTR pound-SIM finish-PAST lie-?-LOC

udiaea adu ägula malahilä dami amo neala
udia-ea adu ägu-la ma-lahilä dami amo nea-la
 female-ERG string.bag carry-SIM come-SEQ sago.pulp that get-SIM

ägula alahilä fudu daiya negesilahilä näbiädoea däilälo.
ägu-la a-lahilä fudu daiya nege-si-lahilä näbiädo-ea däilä-lo
 carry-SIM go-SEQ limb on put-BEN-SEQ rod-INSTR beat-IRR

After splitting it, pounding it enough, a woman coming carrying a string bag, and then getting the sago pulp and going carrying it, then putting it on the limb, then it can be beaten.

[Sago 006]

- (109) *Näbiädoea däilalahilä hä sīgäi dië amogi ödä*
näbiädo-ea däilä-lahilä hä sīgä-i di-ë amo-gi ödä
 rod-INSTR beat-SEQ therefore decay-PAST lie-? that-LOC water

sögalahilä nobigilo.
söga-lahilä nobigi-lo
 pour-SEQ squeeze-IRR

After beating it with a rod so that it is broken down, then pouring
 water, it can be squeezed.

[Sago 007]

- (110) *Nobigilahilä dü amo sadia galahilä hodo amo wahalo diëgi*
nobigi-lahilä dü amo sadia ga-lahilä hodo amo wahalo di-ë-gi
 squeeze-SEQ residue that throw over-SEQ trunk that sago lie-?-LOC

ödä amo sögadigilahilä wahalo amo mäsiigi salelo.
ödä amo söga-digi-lahilä wahalo amo mäsi-gi sala-lo
 water that pour-CMPLV-SEQ sago that sago.bag-LOC fill.up-IRR

After squeezing, throwing away the residue, the edible sago being
 there, pouring that last water, that sago can fill up the sago bag.

[Sago 008]

- (111) *Salalahilä wahalo amo ägula awalahilä mösöa gosagisilo.*
sala-lahilä wahalo amo ägu-la awä-lahilä mösö-a gosa-gisi-lo
 fill.up-SEQ sago that carry-SIM go-SEQ house-ALL hang.up-?-IRR

After filling it up, carrying that sago and going, then it can be hung
 up at the house.

[Sago 009]

- (112) *Amalahilä nulo edefademalä gobelahilä amea falai*
ama-lahilä nulo edefade-malä gobe-lahilä amo-ea fala-i
 pro.verb-SEQ fire(wood) big-INTNS cook-SEQ that-INSTR dry-PAST

dië amogi wahalo amo besela negelahilä higibo söbahë
di-ë amo-gi wahalo amo besela nege-lahilä higibo söbahë
 lie-? that-LOC sago that take.out put-SEQ large.leaf large.leaf

dea awälahilä amea usulala odoa mogela gesalea
dea awä-lahilä amo-ea usula-la odoa moge-la ge-salea
 get go-SEQ that-INSTR wrap-SIM some divide-SIM bury-ASP

odoa mogela ägula alahilä mösöa nulo.
odoa moge-la ägu-la a-lahilä mösö-a na-lo
 some divide-SIM carry-SIM go-SEQ house-ALL eat-IRR

After doing that and then making a big fire, when it is dried with that, removing that sago, after going to get large leaves, wrapping it with them, dividing some to bury, dividing some for carrying away, it can be eaten at the house.

[Sago 010]

- (113) *Amalahilä nahamadesevida aube äüda ohodoa*
ama-lahilä na-sa-made-se-gi-da aube äüda ohodoa
 pro.verb-SEQ eat-ASP-?-SEQ-LOC-DEF moon two three

biidiagadoi alahiläda abolä gei amo bu dea
biidia-gadoi a-lahilä-da abolä ge-i amo bu dea
 four-like go-SEQ-DEF then bury-PAST that again get

alahilä nulo.
a-lahilä na-lo
 go-SEQ eat-IRR

After doing that, when it is all eaten, about two, three or four months later, then after going to get the buried (sago) again, it can be eaten.

[Sago 011]

- (114) *Udia dolö bagosegi amo dea alahilä gualöladigi udia dolö*
udia dolö bago-se-gi amo dea a-lahilä gualö-ladigi udia dolö
 female male die-SEQ-LOC that get go-SEQ mourn-? female male

gedosegi amo dea alahilä ala gialadigi hamoi
gedo-se-gi amo dea a-lahilä a-la gia-ladigi hamo-i
 join-SEQ-LOC that get go-SEQ go-SIM cook-? do-PAST

hamosalea amo dea giala nadigi amala
hamo-salea amo dea gia-la na-digi ama-la
 do-ASP that get cook-SIM eat-CMPLV pro.verb-SIM

hamomolö helësëlahilä wahaloda amala gelo.
hamo-molö helësë-lahilä wahalo-da ama-la ge-lo
 do-FUT think-SEQ sago-DEF pro.verb-SIM bury-IRR

When a person dies, going to get that they mourn, when people gather, going to get that, they cook, doing work, going to get that, they eat, after realizing they will do it that way, that sago can be buried like that.

[Sago 012]

- (115) *Hä amo.*
hä amo
 result that

That is the result.

[Sago 013]

- (116) *Agui.*
agu-i
 finish-PAST

Finished.

[Sago 014]

Assembled free translations:

When (a person) thinks of sago food, going to chop sago is done like this. Going carrying a sago bag, holding a palm husk dish, holding a rod, holding a sago hammer, holding an ax then going and arriving at the base of a sago tree, that sago tree can be chopped. Chopping the sago tree down, the limbs can be removed. After removing and piling the limbs, after a woman arranges them, carrying those limbs and going and joining them where sago will be beaten, a man can clean (the trunk). After cleaning, (the trunk) can be split. After splitting it, pounding it enough, a woman coming carrying a string bag, and then getting the sago pulp and going carrying it, then putting it on the limb, then it can be beaten. After beating it with a rod so that it is broken down, then pouring water, it can be squeezed. After squeezing, throwing away the residue, the edible sago being there, pouring that last water, that sago can fill up the sago bag. After filling it up, carrying that sago and going, then it can be hung up at the house. After doing that and then making a big fire, when it is dried with that, removing that sago, after going to get large leaves, wrapping it with them, dividing some to bury, dividing some for carrying away, it can be eaten at the house. After doing that, when it is all eaten, about two, three or four months later, then after going to get the buried (sago) again, it can be eaten. When a person dies, going to get that they mourn, when people gather, going to get that, they cook, doing work, going to get that, they eat, after realizing they will do it that way, that sago can be buried like that. That is the result. Finished.

APPENDIX B:

LEECH TEXT

LEECH TEXT

Note: Quote margins are indicated in the vernacular text with double chevrons: « ».

The evidential morpheme *wabu* is shown here attached to the final verb of each sentence.

Its status as bound or free, however, has not been clearly determined.

- (117) *Siba fi sedalu.*
siba fi sedalu
 before clan story

A story of the old clan.

[Leech2 001]

- (118) *Siba fi ilida dolö boboga hüfi fiwabu.*
siba fi ili-da dolö boboga hü-fi fi-i-wabu
 before clan 3p-DEF male fat meat-clan sit-PAST-EV.hear

The old clan were a bunch of big fat people.

[Leech2 002]

- (119) *Boboga hüfi amea nowemolö asusugala mösöamu*
boboga hü-fi amo-ea nowe-molö asusuga-la mösö-a-mu
 fat meat-clan that-ERG arise-FUT confuse-SIM house-ALL-ISOL

fifigilowabu.
 DUP-*fi-gi-lo-wabu*
 ASP-sit-?-IRR-EV.hear

Those big fat ones, forgetting how to stand up, always kept sitting
 in their houses.

[Leech2 003]

- (120) *Mösöamu salea abilia hamomolödula asigi*
mösö-a-mu sa-lea abilia hamo-molö-du-la asigi-i
 house-ALL-ISOL sit-? how do-FUT-DUB-COMP think-PAST

säösäöla fifigilowabu.
säösäö-la DUP-fi-gi-lo-wabu
 worry-SIM ASP-sit-?-IRR-EV.hear

Always staying in their houses, they would sit worrying, and think about what to do.

[Leech2 004]

- (121) *Amalamu sefolalea dolö afädea sähalea «nili heale mosaea*
ama-la-mu se-fola-lea dolö afäde-ea sä-salea nili heale mo-maea
 thus-SIM-HAB sit-p-? male one-ERG say-ASP 1p blood go-CAUS

abilia hamomolödu»la säiwabu.
abilia hamo-molö-du-la sä-i-wabu
 how do-FUT-DUB-COMP say-PAST-EV.hear

Always staying like that, one man said, "I wonder what we can do to cause our blood to go."

[Leech2 005]

- (122) *Amala säsebegi dolö afädea sähalea «na ado afäde*
ama-la sä-sebe-gi dolö afäde-ea sä-salea ne-ea ado afäde
 thus-SIM say-ASP-LOC male one-ERG say-ASP 1s-ERG talk one

nabi sädule»la säiwabu.
naba-i sä-du-le-la sä-i-wabu
 hear-PAST say-DUB-YNQM-COMP say-PAST-EV.hear

Saying that, one man said, "I wonder if I should tell something I heard."

[Leech2 006]

- (123) *Amala säsebegi ilia ema sähalea «nilia*
ama-la sä-sebe-gi ili-ea e-ma sä-salea nili-ea
 thus-SIM say-ASP-LOC 3p-ERG 3s-IO say-ASP 1p-ERG

nabedelä dia sämo»la säiwabu.
naba-delä di-ea sä-mo-la sä-i-wabu
 hear-DESID 2s-ERG say-PRES.IMP-COMP say-PAST-EV.hear

Saying that, they said to him, "We want to hear it, you talk." [Leech2 007]

- (124) *Amala säsebegi ea ilima sähalea «Bedamili dolö afäde*
ama-la sä-sebe-gi e-ea ili-ma sä-salea Bedamili dolö afäde
 thus-SIM say-ASP-LOC 3s-ERG 3p-IO say-ASP Bedamini male one

Sewalea sähalea «Bedamili nilile segea hebe iafie salea»la
Sewale-ea sä-salea Bedamili nili-ïe segea hebe iafie sa-lea-la
 Sewale-ERG say-ASP Bedamili 1p-GEN outside leech many sit-COMP

säse na nabi amea nilile heale muaea
sä-se ne-ea naba-i amo-ea nili-le heale na-maea
 say-SEQ 1s-ERG hear-PAST that-INSTR 1p-GEN blood eat-CAUS

nilia su gaula nea äüdulä»la säiwabu.
nili-ea su gau-la nea a-delä-la sä-i-wabu
 1p-ERG payment hold-SIM get go-DESID-COMP say-PAST-EV.hear

Saying that, he said to them, "One Bedamini man, Sewale, said, 'Bedamini, in our place there are lots of leeches', with what I heard we can cause our blood to be eaten. Carrying the payment we should go get it."

[Leech2 008]

- (125) *Amala säsebegi ilia ema edefademalä obeägilahilä*
ama-la sä-sebe-gi ili-ea e-ma edefade-malä obeägi-lahilä
 thus-SIM say-ASP-LOC 3p-ERG 3s-IO big-INTNS rejoice-SEQ

«nilia su gaula nea äüdulä»la säiwabu.
nili-ea su gau-la nea a-delä-la sä-i-wabu
 1p-ERG payment hold-SIM get go-DESID-COMP say-PAST-EV.hear

Saying that, after they were rejoicing very greatly with him,
 "Carrying the payment, we intend to go get it," they said.

[Leech2 009]

- (126) *Amala sälahilä su gifalo sumidiwabu.*
ama-la sä-lahilä su gifalo somoda-i-wabu
 thus-SIM say-SEQ payment cowrie.shell take.out-PAST-EV.hear

After saying that, they got the cowrie shell payment together.

[Leech2 010]

- (127) *Somodala gaula dolö äüdaea su gaula idia*
somoda-la gau-la dolö äüda-ea su gau-la idi-a
 take.out-SIM hold-SIM male two-ERG payment hold-SIM path-ALL

didia asiwabu.
di-di-a a-i-wabu
 DUP-sleep-? go-PAST-EV.hear

Getting it together and carrying it, two men carrying the payment
 left, sleeping on the trail.

[Leech2 011]

- (128) *Idia didia ala Bedamili mösöa beselagalaiwabu.*
idi-a di-di-a a-la Bedamili mösö-a beselagala-i-wabu
 path-ALL DUP-sleep-? go-SIM Bedamili house-ALL arrive-PAST-EV.hear

Sleeping on the trail and going, they arrived at the Bedamini
 houses.

[Leech2 012]

- (129) *Beselagalalahilä Bedamili dolö ilima sähalea «ali su*
beselagala-lahilä Bedamili dolö ili-ma sä-salea ali su
 arrive-SEQ Bedamini male 3p-IO say-ASP 1d payment

gifalo gaula dilia hebe gogi ali nea
gifalo gau-la dili-a hebe go-gi ali nea
 cowrie.shell hold-SIM 2p-ALL leech this-LOC 1d get

misimelë»la säiwabu.
misi-i-melë-la sä-i-wabu
 come-PAST-new.info-COMP say-PAST-EV.hear

After arriving, they said to the Bedamini men, "Carrying the payment we came to get this leech from you."

[Leech2 013]

- (130) *Amala säsebegi Bedamili dolö ilia elema edefademalä*
ama-la sä-sebe-gi Bedamili dolö ili-ea ele-ma edefade-malä
 thus-SIM say-ASP-LOC Bedamili male 3p-ERG 3d-IO big-INTNS

obeägilahilä gifalo amo neahalea ilia elegali hebe
obeägi-lahilä gifalo amo nea-salea ili-ea ele-gali hebe
 rejoice-SEQ cowrie.shell that get-ASP 3p-ERG 3d-DAT leech

nafodola iwabu.
nafodo-la iä-i-wabu
 bind-SIM give-PAST-EV.hear

Saying that, after the Bedamini men were rejoicing very greatly with them, getting the cowrie shells, tying up a leech, they gave it to them.

[Leech2 014]

- (131) *Elea hebe amo gaula idia didia obëgeiwabu.*
ele-ea hebe amo gau-la idi-a di-di-a obëge-i-wabu
 3d-ERG leech that hold-SIM path-ALL DUP-sleep-? return-PAST-EV.hear

Carrying that leech, sleeping on the trail, they returned. [Leech2 015]

- (132) *Obëgela mala hilile Edolo segea ifoiwabu.*
obëge-la ma-la hï-ili-le Edolo segea ifo-i-wabu
 return-SIM come-SIM EMPH-3p-GEN Edolo outside release-PAST-EV.hear

Returning, coming to their own Edolo place, they released it. [Leech2 016]

- (133) *Hebe amea ilile heale nahamadesebegi domalo neala*
hebe amo-ea ili-le heale na-sa-made-sebe-gi domalo nea-la
 leech that-ERG 3p-GEN blood eat-ASP-?-ASP-LOC body stand-SIM

holöfaliwabu.
holöfali-wabu
 small-EV.hear

That leech ate their blood completely so that their bodies became small. [Leech2 017]

- (134) *Hebe made nea asi galebe dolö boboga filabio.*
hebe made nea a-i ga-lebe dolö boboga fi-labio
 leech NEG get go-PAST CTRFACT-? male fat sit-CTRFACT

If they had not gone to get the leech men would still be fat. [Leech2 018]

- (135) *Hebe nea asi amea udia dolöie heale nase*
hebe nea a-i amo-ea udia dolö-ïe heale na-se
 leech get go-PAST that-INSTR female male-GEN blood eat-SEQ

amea udia dolö neala nelësageai salea.
amo-ea udia dolö nea-la nelësa-geai sa-lea
 that-INSTR female male stand-SIM small-? sit-?

With the leech they went to get eating people's blood, they are [Leech2 019]
 small now.

(136) *Hä amo.*
hä amo
 result that

That is the result. [Leech2 020]

(137) *Agui.*
agu-i
 finish-PAST

Finished. [Leech2 021]

Assembled free translations:

A story of the old clan. The old clan were a bunch of big fat people. Those big fat ones, forgetting how to stand up, always kept sitting in their houses. Always staying in their houses, they would sit worrying, and think about what to do. Always staying like that, one man said, "I wonder what we can do to cause our blood to go." Saying that, one man said, "I wonder if I should tell something I heard." Saying that, they said to him, "We want to hear it, you talk." Saying that, he said to them, "One Bedamini man, Sewale, said, 'Bedamini, in our place there are lots of leeches', with what I heard we can cause our blood to be eaten. Carrying the payment we should go get it." Saying that, after they were rejoicing very greatly with him, "Carrying the payment, we intend to go get it," they said. After saying that, they got the cowrie shell payment together. Getting it together and

carrying it, two men carrying the payment left, sleeping on the trail. Sleeping on the trail and going, they arrived at the Bedamini houses. After arriving, they said to the Bedamini men, "Carrying the payment we came to get this leech from you." Saying that, after the Bedamini men were rejoicing very greatly with them, getting the cowrie shells, tying up a leech, they gave it to them. Carrying that leech, sleeping on the trail, they returned. Returning, coming to their own Edolo place, they released it. That leech ate their blood completely so that their bodies became small. If they had not gone to get the leech men would still be fat. With the leech they went to get eating people's blood, they are small now. That is the result. Finished.

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Edolo Grammar: Thesis Addenda

Jan Gossner

April 1995

EDOLO GRAMMAR: THESIS ADDENDA

Note: These paradigms and interlinearized texts are submitted in conjunction with the MA Thesis Aspects of Edolo Grammar in fulfillment of the Grammar Essentials requirements of the Technical Studies Department of the Papua New Guinea Branch of the Summer Institute of Linguistics. Numbering of table and examples is continued from Aspects of Edolo Grammar. The Edolo people live in Southern Highlands Province, Papua New Guinea.

Jan Gossner, April 1995.

LIST OF ABBREVIATIONS

ABS	absolutive	IMP	imperative
ACCOMP	accompaniment	INSTR	instrumental
ADV	adverb	INTNS	intensifier
Agr	agreement	IO	indirect object
ALL	allative	IRR	irrealis
ASP	aspect	ISOL	isolative
BEN	benefactive	LOC	locative
CAUS	causative	m	male
CMPLV	completive	NEG	negative
COMP	complementizer	NR	nominalizer
d	dual	p	plural
DAT	dative	PAST	past
DEF	definite	REDUP.ITER	iterative
DESID	desiderative	PROH	prohibitive
DUB	dubitative	s	singular
DUP	reduplication	SEQ	sequential
ED	Eastern Dialect	SIM	simultaneous
EMPH.i	emphatic infix	SL	special language (<u>pandanus language</u>)
EMPH.p	emphatic prefix		
ERG	ergative	YNQM	yes-no question marker
EV/Evid	evidential		
EXCL	exclusive	1	first person
f	female	2	second person
FUT	future	3	third person
GEN	genitive		

Numbers marking person are followed by d, p, or s for dual, plural or singular, respectively. Numbers following glosses are used to differentiate non-unique glosses. There are a few differences in abbreviations and glosses from those used in Aspects of Edolo Grammar.

Square brackets in interlinearized data indicate material that was added upon transcription or later review by a native speaker other than the original source of the text. Parentheses indicate material that was taken out or replaced by that in square brackets at the same time.

The paradigms given here use a subset of the morphemes which are attested on Edolo verbs. These paradigms use 29 morphemes which are considered primary or basic verbal inflection, hereafter referred to as 'primary morphemes'. Not considered are: nine clause-level morphemes, five of which mark evidentiality; five deictic or directional morphemes, which occur on a limited number of verbs; and 17 morphemes which are not well understood at present and await further research. Existential verbs are listed in Table 12 on page 57 of Aspects of Edolo Grammar and are not addressed here.

Table 28 gives each of the primary morphemes inflected on three different verb roots. Six of these morphemes only occur in combination with other morphology and are illustrated in combination.

Table 28.-- Primary verbal morphology

morpheme(s)	gloss(es)	'fall/enter/descend'	'cook'	'do'
		<i>diga</i>	<i>gobe</i>	<i>hamo</i>
<i>-delä</i>	DESID	<i>digadelä</i>	<i>gobedelä</i>	<i>hamodelä</i>
<i>-di</i>	HORT	<i>digadi</i>	<i>gobedi</i>	<i>hamodi</i>
<i>-fia-i</i>	PLUR-PAST	<i>digafiai</i>	*	*
<i>-i</i>	PAST	<i>digai</i>	<i>gobei</i>	<i>hamoi</i>
<i>-la</i>	SIM	<i>digala</i>	<i>gobela</i>	<i>hamolä</i>
<i>-labio</i>	CTRFACT	<i>digalabio</i>	<i>gobelabio</i>	<i>hamolabio</i>
<i>-lahilä</i>	SEQ	<i>digalahilä</i>	<i>gobelahilä</i>	<i>hamolahilä</i>
<i>-lasi-Ø</i>	BEN-PAST	<i>digalasi</i>	<i>gobelasisa</i>	<i>hamolasisa</i>
<i>-lebe</i>	PERF1	<i>digalebe</i>	<i>gobelebe</i>	<i>hamolebe</i>
<i>-lo</i>	IRR	<i>digalo</i>	<i>gobelo</i>	<i>hamolö</i>
<i>-loea</i>	LEST.PROH	<i>digaloea</i>	<i>gobeloea</i>	<i>hamoloea</i>
<i>-loyo</i>	LEST	<i>digaloyo</i>	<i>gobeloyo</i>	<i>hamoloyo</i>
<i>-mabio</i>	FUT.PROH	<i>digamabio</i>	<i>gobemabio</i>	<i>hamomabio</i>
<i>-mabu</i>	PRES.PROH	<i>digamabu</i>	<i>gobemabu</i>	<i>hamomabu</i>
<i>-maea</i>	CAUS3	<i>digamaea</i>	<i>gobemaea</i>	<i>hamomaea</i>
<i>-malai</i>	PAST.IMP	<i>digamalai</i>	<i>gobemalai</i>	<i>hamomalai</i>
<i>-malo</i>	FUT.IMP	<i>digamalo</i>	<i>gobemalo</i>	<i>hamomalo</i>
<i>-mo</i>	PRES.IMP	<i>digamo</i>	<i>gobemo</i>	<i>hamomo</i>
<i>-molö</i>	FUT	<i>digamolö</i>	<i>gobemolö</i>	<i>hamomolö</i>
<i>-molö-ï</i>	FUT-DESID1	<i>digamolöï</i>	<i>gobemolöï</i>	<i>hamomolöï</i>
<i>-molö-ïë</i>	FUT-PURP	<i>digamolöïë</i>	<i>gobemolöïë</i>	<i>hamomolöïë</i>
<i>-sa</i>	PRES	<i>digaha</i>	<i>gobesa</i>	<i>hamosa</i>
<i>-sa-go</i>	PRES-PROG	<i>digahago</i>	<i>gobesago</i>	<i>hamosago</i>
<i>-salea</i>	ASP	<i>digahalea</i>	<i>gobesalea</i>	<i>hamosalea</i>
<i>-se</i>	SUB.SEQ	<i>digase</i>	<i>gobese</i>	<i>hamose</i>
<i>-sebe</i>	IMPFV	<i>digasebe</i>	<i>gobesebe</i>	<i>hamosebe</i>
<i>-seda</i>	COND	<i>digaseda</i>	<i>gobeseda</i>	<i>hamoseda</i>
<i>-solo</i>	WHEN	<i>digasolo</i>	<i>gobesolo</i>	<i>hamosolo</i>
<i>(V)CV→(V)CVCV</i>	REDUP.ITER- -PAST	<i>didigai</i>	<i>gogobei</i>	<i>hahamoi</i>

Table 29 gives 27 combinations of the primary morphemes, given in Table 28, that are attested in the corpus, although on varying verb roots. Reduplication, however, is not considered.

Table 29.-- combinations attested in corpus

morphemes	glosses	'fall/enter/descend	'cook'	'do'
		<i>diga</i>	<i>gobe</i>	<i>hamo</i>
<i>-lasi-delä-seda</i>	BEN-DESID-COND	<i>digalasiläsedä</i>	<i>gobelasiläsedä</i>	<i>hamolasiläsedä</i>
				<i>a</i>
<i>-fia-delä</i>	PLUR-DESID	<i>digafiadälä</i>	*	*
<i>-fia-di</i>	PLUR-HORT	<i>digafiadi</i>	*	*
<i>-fia-ha</i>	PLUR-PRES	<i>digafiaha</i>	*	*
<i>-fia-halea</i>	PLUR-ASP	<i>digafiahalea</i>	*	*
<i>-fia-la</i>	PLUR-SIM	<i>digafiala</i>	*	*
<i>-fia-lahilä</i>	PLUR-SEQ	<i>digafialahilä</i>	*	*
<i>-fia-malo</i>	PLUR-FUT.IMP	<i>digafiamalo</i>	*	*
<i>-fia-i</i>	PLUR-PAST	<i>digafiai</i>	*	*
<i>-fia-mabio</i>	PLUR-FUT.PROH	<i>digafiamabio</i>	*	*
<i>-fia-mo</i>	PLUR-PRES.IMP	<i>digafiamo</i>	*	*
<i>-fia-molö</i>	PLUR-FUT	<i>digafiamolö</i>	*	*
<i>-fia-sebe</i>	PLUR-IMPV	<i>digafiasebe</i>	*	*
<i>-fia-seda</i>	PLUR-COND	<i>digafiaseda</i>	*	*
<i>-lasi-lahilä</i>	BEN-SEQ	<i>digalasilahilä</i>	<i>gobelasilahilä</i>	<i>hamolasilahilä</i>
<i>-lasi-lo</i>	BEN-IRR	<i>digalasilö</i>	<i>gobelasilö</i>	<i>hamolasilö</i>
<i>-lasi-loea</i>	BEN-LEST.PROH	<i>digalasiloea</i>	<i>gobelasiloea</i>	<i>hamolasiloea</i>
<i>-lasi-mo</i>	BEN-PRES.IMP	<i>digalasilimo</i>	<i>gobelasilimo</i>	<i>hamolasilimo</i>
<i>-lasi-molö</i>	BEN-FUT	<i>digalasilimolö</i>	<i>gobelasilimolö</i>	<i>hamolasilimolö</i>
<i>-lasi-molö-ï</i>	BEN-FUT-DESID1	<i>digalasilimolöï</i>	<i>gobelasilimolöï</i>	<i>hamolasilimolöï</i>
<i>-lasi-molö-ïë</i>	BEN-FUT-PURP	<i>digalasilimolöïë</i>	<i>gobelasilimolöïë</i>	<i>hamolasilimolöïë</i>
<i>-lasi-sa</i>	BEN-ASP	<i>digalasilisa</i>	<i>gobelasilisa</i>	<i>hamolasilisa</i>
<i>-lasi-se</i>	BEN-SUB.SEQ	<i>digalasilise</i>	<i>gobelasilise</i>	<i>hamolasilise</i>
<i>-lasi-sebe</i>	BEN-IMPV	<i>digalasilisebe</i>	<i>gobelasilisebe</i>	<i>hamolasilisebe</i>
<i>-lasi-seda</i>	BEN-COND	<i>digalasiliseda</i>	<i>gobelasiliseda</i>	<i>hamolasiliseda</i>
<i>-se-go</i>	SUB.SEQ-PROG	<i>digasego</i>	<i>gobesege</i>	<i>hamosego</i>
<i>-sebe-go</i>	IMPV-PROG	<i>digasebege</i>	<i>gobesebege</i>	<i>hamosebege</i>

Table 30 gives an additional twelve combinations of the primary morphemes that are suggested by combining related morphemes. For example, *-fia* 'PLUR' is attested with *-malo* 'FUT.IMP' which suggests that 'PLUR' could also occur with past and present imperatives.

Table 30.-- possibilities suggested by attested combinations

morphemes	glosses	'fall/enter/descend' <i>diga</i>	'cook' <i>gobe</i>	'do' <i>hamo</i>
<i>-fia-malai</i>	PLUR-PAST.IMP	<i>digafiamalai</i>	*	*
<i>-fia-mo</i>	PLUR-PRES.IMP	<i>digafiamo</i>	*	*
<i>-fia-se</i>	PLUR-SUB.SEQ	<i>digafiase</i>	*	*
<i>-fia-se-go</i>	PLUR-SUB.SEQ-PROG	<i>digafiasego</i>	*	*
<i>-fia-sebe-go</i>	PLUR-IMPV-PROG	<i>digafiasebego</i>	*	*
<i>-lasi-la</i>	BEN-SIM	<i>digalasila</i>	<i>gobelasila</i>	<i>hamolasila</i>
<i>-lasi-loyo</i>	BEN-LEST	<i>digalasiloyo</i>	<i>gobelasiloyo</i>	<i>hamolasiloyo</i>
<i>-lasi-malai</i>	BEN-PAST.IMP	<i>digalaisalmai</i>	<i>gobelaisalmai</i>	<i>hamolaisalmai</i>
<i>-lasi-malo</i>	BEN-FUT.IMP	<i>digalaisalmo</i>	<i>gobelaisalmo</i>	<i>hamolaisalmo</i>
<i>-lasi-salea</i>	BEN-ASP	<i>digalasisalea</i>	<i>gobelasisalea</i>	<i>hamolasisalea</i>
<i>-lasi-se-go</i>	BEN-SUB.SEQ-PROG	<i>digalasisego</i>	<i>gobelasisego</i>	<i>hamolasisego</i>
<i>-lasi-sebe-go</i>	BEN-IMPV-PROG	<i>digalasisebego</i>	<i>gobelasisebego</i>	<i>hamolasisebego</i>

DOCTOR NARRATIVE TEXT

- (138) *Segeyo afädëgi ganisolo Olaiba misi.*
segeyo afädë-gi ganisolo olaiba misi-Ø
 day one-LOC councilor Olaiba.person.m come2-PAST

One day councilor Olaiba came.

[Doctor 001]

- (139) *Ea udia dolö wela nidi.*
e-a udia dolö we-la nidi-Ø
 3sg-ERG female male call-SIM get1-PAST

Calling the people he got them.

[Doctor 002]

- (140) *Udia dolö ili sulubadela gegedoi.*
udia dolö ili sulubade-la ge-gedo-i
 female male 3pl all-COMIT1 REDUP.ITER-gather-PAST

All the men and women gathered.

[Doctor 003]

- (141) *Amala gedosebegi ganisolea udia dolöma alögoda*
ama-la gedo-sebe-gi ganisolo-ea udia dolö-ma alögoda
 pro.verb-SIM gather-IMPV-SUB councilor-ERG female male-IO doctor

moholö ado säi.
mo-holö ado sä-i
 go1-FUT talk say-PAST

When they gathered, the councilor said to the people, a doctor will come.

[Doctor 004]

- (147) *Dolö ilia nulo habei.*
dolö ili-a nulo habe-i
 male 3pl-ERG fire(wood) split3-PAST

The men split the firewood.

[Doctor 010]

- (148) *Amalahilä udia dolö ilia molö daiyala negei.*
ama-lahilä udia dolö ili-a molö daiya-la nege-i
 pro.verb-SEQ female male 3pl-ERG food prepare-SIM put-PAST

After that the men and women preparing the food put it.

[Doctor 011]

- (149) *Amala molö giala negei.*
ama-la molö gia-la nege-i
 pro.verb-SIM food steam.cook-SIM put-PAST

Thus cooking the food they put it.

[Doctor 012]

- (150) *Ilia molö giai dibegi alögoda ie*
ili-a molö gia-i di-be-gi alögoda Ø-ie
 3pl-ERG food steam.cook-PAST be.lie-IMPV-SUB doctor 3sg-GEN

udia malöla ili misi.
udia malö-la ili misi-Ø
 female child-COMIT1 3pl come2-PAST

While they cooked the food the doctor with his wife and children came.

[Doctor 013]

- (151) *Ilia molö giai amo deala alögoda i.*
ili-a molö gia-i amo dea-la alögoda i-Ø
 3pl-ERG food steam.cook-PAST that pluck-SIM doctor give-PAST

Getting the cooked food they gave it to the doctor.

[Doctor 014]

(152) *Amalahilä ilia obeägilahilä mai.*
ama-lahilä ili-a obeägi-lahilä ma-i
 pro.verb-SEQ 3pl-ERG rejoice-SEQ consume-PAST

After that they rejoiced and then ate.

[Doctor 015]

(153) *Amalahilä alögodaea ado sämola säi.*
ama-lahilä alögoda-ea ado sä-mo-la sä-i
 pro.verb-SEQ doctor-ERG talk say-PRES.IMP-COMP say-PAST

After that they told the doctor to talk.

[Doctor 016]

(154) *Alögodaea adomolöie udia dolö wei.*
alögoda-ea ado-molö-ie udia dolö we-i
 doctor-ERG talk-FUT-CAUS2 female male call-PAST

So the doctor could talk he called the women and men.

[Doctor 017]

(155) *Udia dolö hä gedoi.*
udia dolö hä gedo-i
 female male therefore gather-PAST

So women and men gathered.

[Doctor 018]

(156) *Alögodaea hä udia dolöma ado säi.*
alögoda-ea hä udia dolö-ma ado sä-i
 doctor-ERG therefore female male-IO talk say-PAST

So the doctor talked to the people.

[Doctor 019]

(157) *Ea gomalä säi.*
e-a gomalä sä-i
 3sg-ERG same say-PAST

He said like this.

[Doctor 020]

(158) *Osodagi* *alögoda hamoi* *hamomolömelëla*
osoda-gi *alögoda hamo-i* *hamo-molö-melë-la*
middle.finger/three-LOC doctor do-NR.PAST do-FUT-NEW.INFO2-COMP

säi.
sä-i
say-PAST

On Wednesday you will do doctor work, he said. [Doctor 021]

(159) *Ea* *amala* *säi,* *dögöi dogomalo.*
e-a *ama-la* *sä-i* *dögöi dogo-malo*
3sg-ERG pro.verb-COMP say-PAST toilet dig1-FUT.IMP

He said this, dig a toilet. [Doctor 022]

(160) *Gisi* *damumalola* *säi.*
gisi *damu-malo-la* *sä-i*
grass cut-FUT.IMP-COMP say-PAST

Cut the grass, he said. [Doctor 023]

(161) *Alögoda sege amogi [aube] biya nelo.*
alögoda sege amo-gi [aube] biya ne-lo
doctor place1 that-LOC [moon] five be.stand-PAST.ex

The doctor stayed in that place five [months]. [Doctor 024]

Assembled free translations:

One day councilor Olaiba came. Calling the people he got them. All the men and women gathered. When they gathered, the councilor said to the people, a doctor will come. He said a doctor with his wife and children will come. The women should sweep the rubbish from the doctor's house, he said. The men should split firewood, he said. The women swept the rubbish. Cutting firewood, the men came carrying it. The men split the firewood. After that the men and women preparing the food put it. Thus cooking the food they put it. While they cooked the food

the doctor with his wife and children came. Getting the cooked food they gave it to the doctor. After that they rejoiced and then ate. After that they told the doctor to talk. So the doctor could talk he called the women and men. So women and men gathered. So the doctor talked to the people. He said like this. On Wednesday you will do doctor work, he said. He said this, dig a toilet. Cut the grass, he said. The doctor stayed in that place five [months].

FISHING NARRATIVE TEXT

(162) *Salele elö alogogi abaso dabalömelëla*
salele elö alogo-gi abaso dabu-lö-melë-la
 week another across.mid.distant-LOC catfish poison-FUT-NEW.INFO2-COMP

didiäla negelahilä nili digai.
didiä-la nege-lahilä nili diga-i
 discuss-SIM put-SEQ descend.fall.enter-PAST 1pl

Last week discussing poisoning catfish then we went down. [Fishnarr 001]

(163) *Digalahilä gaalui amogi halöfalö dabi.*
diga-lahilä gaalu-i amo-gi halöfalö dab-i
 descend.fall.enter-SEQ join-PAST that-LOC poison.root poison-PAST

After going down together we made poison. [Fishnarr 002]

(164) *Dabalahilä gaalui amogi gei.*
daba-lahilä gaalu-i amo-gi ge-i
 poison-SEQ join-PAST that-LOC bury/immerse-PAST

After making the poison together we washed it. [Fishnarr 003]

(165) *Gelahilä hului amo dibegi dü gei.*
ge-lahilä hulu-i amo di-be-gi dü ge-i
 bury/immerse-SEQ fill3-PAST that be.lie-IMPV-SUB residue bury/immerse-PAST

After washing it, the containers being full, they washed the residue. [Fishnarr 004]

(166) *Hululahilä adugamolö dibegi dü gei*
hulu-lahilä aduga-molö di-be-gi dü ge-i
 fill3-SEQ overflow2-FUT be.lie-IMPFV-SUB residue bury/immerse-PAST

amo halöfalö heale made gabugida gaalui
amo halöfalö heale made gabu-gi-da gaalu-i
 that poison.root blood NEG1 have2-SUB-CMPL.CL join-PAST

dilo amo dagabola fisigä imogoi.
di-lo amo dagabo-la fisigä imogo-i
 be.lie-PAST.ex that break-SIM release2 around.distant-PAST

Filling them to overflowing, washing the residue until it doesn't have any more sap, breaking the ones lying there together they let it go down. [Fishnarr 005]

(167) *Dagabola fisigä imogolahilä halöfalö heale amo dafidi*
dagabo-la fisigä imogo-lahilä halöfalö heale amo dafidi
 break-SIM release2 around.distant-SEQ poison.root blood that first2

udia dolö hobeala abaso hohogola
udia dolö hobeala abaso ho-hogo-la
 female male later1-COMIT1 catfish REDUP.ITER-look.for1-SIM

nedei.
nede-i
 descend1-PAST

Breaking and letting it go down, that poison sap first, the men and women later, seeking catfish went down. [Fishnarr 006]

(168) *Abaso hohogola nedei amo*
abaso ho-hogo-la nede-i amo
 catfish REDUP.ITER-look.for1-SIM descend1-PAST that

hohogola nedala asololahilä udia dolö
ho-hogo-la neda-la a-solo-lahilä udia dolö
 REDUP.ITER-look.for1-SIM descend1-SIM go2-WHEN-SEQ female male

odoaeage ni.
odoa-ea-ge n-i
 some-ERG-TOO get-PAST

The ones who went down seeking catfish when they went down seeking
 some women and men got some.

[Fishnarr 007]

(169) *Neala ägügüla hogola nelea*
nea-la gü-ägü-la hogo-la ne-le-a
 get-SIM REDUP.ITER-carry-SIM look.for1-SIM REDUP.ITER-be.stand-ASP

nedahalea hä ede ni.
neda-halea hä ede n-i
 descend1-ASP therefore mature1 get-PAST

Getting, carrying, seeking as they go down then they got lots.

[Fishnarr 008]

(170) *Ede neala ägüla misi.*
ede nea-la ägü-la misi-Ø
 mature1 get-SIM carry-SIM come2-PAST

Getting lots, carrying they came.

[Fishnarr 009]

(171) *Idiafa* *mogela* *sogölahilä* *mogela* *ägülahilä*
idi-afa *moge-la* *sogö-lahilä* *moge-la* *ägü-lahilä*
path-along divide-SIM string.together1-SEQ divide-SIM carry-SEQ

hä *mösöa* *misi.*
hä *mösö-a* *misi-Ø*
therefore house-ALL come2-PAST

On the road dividing and stringing them together, then dividing and carrying them, then they came to the village.

[Fishnarr 010]

(172) *Ägüla* *malahilä* *mösöa* *mogela* *giai.*
ägü-la *ma-lahilä* *mösö-a* *moge-la* *gia-i*
carry-SIM come1-SEQ house-ALL divide-SIM steam.cook-PAST

Carrying and coming then dividing them at the house they cooked them.

[Fishnarr 011]

(173) *Nebabogalige* *na* *ni* *mogela* *ï.*
n-ebabo-gali-ge *n-a* *n-i* *moge-la* *ï-Ø*
1GEN-uncle-DAT-TOO 1sg-ERG get-PAST divide-SIM give-PAST

Sharing what I got I gave to my uncle, also.

[Fishnarr 012]

(174) *Nemelea* *nadolea* *ni* *amola*
n-eme-le-a *n-ado-le-a* *n-i* *amo-la*
1GEN-mother3-CONJ-ERG 1GEN-father-CONJ-ERG get-PAST that-COMIT1

nebaboea *ni* *amola* *gedola* *mogelahilä* *nili*
n-ebabo-ea *n-i* *amo-la* *gedo-la* *moge-lahilä* *nili*
1GEN-uncle-ERG get-PAST that-COMIT1 gather-SIM divide-SEQ 1pl

wi *giai.*
wi *gia-i*
here steam.cook-PAST

With what my mother and my father got together with what my uncle
got dividing them then we cooked them here. [Fishnarr 013]

(175) *Amalahilä* *digalige* *nogoböla* *ï,* *nilile*
ama-lahilä *di-gali-ge* *nogobö-la* *ï-Ø* *nili-le*
pro.verb-SEQ 2sg-DAT-TOO string.together2-SIM give-PAST 1pl-GEN

haligaigalige.
haligai-gali-ge
light.skinned-DAT-TOO

Then stringing some together we gave some to you also, to our white
man also. [Fishnarr 014]

(176) *Alögodagalige* *nogoböla* *ï.*
alögoda-gali-ge *nogobö-la* *ï-Ø*
doctor-DAT-TOO string.together2-SIM give-PAST

Stringing some together we gave them to the Aid Post Orderly, also. [Fishnarr 015]

(177) *Amalahilä* *giai* *amo nili nahalea* *nebaboea*
ama-lahilä *gia-i* *amo nili na-halea* *n-ebabo-ea*
 pro.verb-SEQ steam.cook-PAST that 1pl consume-ASP 1GEN-uncle-ERG

eda *giai* *malei made (nasebegi)* *[nulo]*
e-da *gia-i* *malei made na-sebe-gi* *nu-lo*
 3sg-DEF steam.cook-PAST many1 NEG1 consume-IMPV-SUB consume-IRR

ameada *(haboimelëlahilä)* *[habosalea]* *biidia*
am-ea-da *habo-i-melë-lahilä* *[habo-salea]* *biidia*
 that-ERG-DEF refuse-PAST-NEW.INFO2-SEQ [refuse-ASP] four

hi *hau* *gabio.*
hi-Ø *hau-i* *gabio*
 EMPH.p-3sg smoke-PAST EV.?

Then as we were eating the cooked ones, my uncle (didn't) [doesn't] eat lots of cooked ones, (after he didn't want) [not wanting] them he put four of them up above the fire.

[Fishnarr 016]

(178) *Hau* *amo hi* *yose (giai)*
hau-i *amo hi-Ø* *yose gia-i*
 smoke-PAST that EMPH.p-3sg morning steam.cook-PAST

[giala *nasio].*
gia-la *na-sio*
 steam.cook-SIM consume-EV.WITNESS

The ones above the fire he (cooked) [cooking, ate] in the morning.

[Fishnarr 017]

(179) *[Hä* *amo.*
hä *amo*
 therefore that

That's all.

[Fishnarr 018]

(180) *Agui.*
agu-i
finish-PAST

The end.

[Fishnarr 019]

Assembled free translations:

Last week discussing poisoning catfish then we went down. After going down together we made poison. After making the poison together we washed it. After washing it, the containers being full, they washed the residue. Filling them to overflowing, washing the residue until it doesn't have any more sap, breaking the ones lying there together they let it go down. Breaking and letting it go down, that poison sap first, the men and women later, seeking catfish went down. The ones who went down seeking catfish when they went down seeking some women and men got some. Getting, carrying, seeking as they go down then they got lots. Getting lots, carrying they came. On the road dividing and stringing them together, then dividing and carrying them, then they came to the village. Carrying and coming then dividing them at the house they cooked them. Sharing what I got I gave to my uncle, also. With what my mother and my father got together with what my uncle got dividing them then we cooked them here. Then stringing some together we gave some to you also, to our white man also. Stringing some together we gave them to the Aid Post Orderly, also. Then as we were eating the cooked ones, my uncle (didn't) [doesn't] eat lots of cooked ones, (after he didn't want) [not wanting] them he put four of them up above the fire. The ones above the fire he (cooked) [cooking, ate] in the morning. [That's all. The end].

GARDEN PROCEDURAL TEXT

(181) *Amai* *amo nilia sagai sagase amoda*
ama-i *amo nili-a saga-i saga-se amo-da*
 pro.verb-PAST that 1pl-ERG plant-NR.PAST plant-SUB.SEQ that-DEF

säfüge, *bailege,* *gaige,* *sagase*
säfü-ge *baile-ge* *gai-ge* *saga-se*
 NG.asparagus-TOO sugar.cane-TOO banana-TOO plant-SUB.SEQ

siabuluge *babogini äsö* *nelebo* *amo amoda*
siabulu-ge *babogini äsö* *nelebo* *amo amo-da*
 sweet.potato-TOO pumpkin slime.cabbage something1 that that-DEF

nili molölahilä *sagalo.*
nili Ø-molö-lahilä *saga-lo*
 1pl consume-FUT-SEQ plant-IRR

So in our planting a garden, asparagus, too, sugarcane, too, banana, too, planting, sweet potato, too, pumpkin, spinach, whatever we will eat we can plant.

[Garden 001]

(182) *Nihili* *sagalo* *eedo* *amo hi* *hedabolafali*
hi-nili *saga-lo* *eedo* *amo hi-Ø* *hedab-ola-fali*
 EMPH.i-1pl plant-IRR father that EMPH.p-3sg good-ADV-INTNS1

bäüi *diëda* *neala* *nulo.*
bäü-i *di-ëda* *nea-la* *nu-lo*
 grow-PAST be.lie-COND get-SIM consume-IRR

We garden owners ourselves, if things grow well, getting them can eat.

[Garden 002]

(183) *Amai amo sïdia bagoseda dolö made sagai*
ama-i amo sïdia bago-seda dolö made saga-i
 pro.verb-PAST that hunger die1-COND male NEG1 plant-NR.PAST

sagalo amoda sïdia bagosa aligilo.
saga-lo amo-da sïdia bago-sa aligi-lo
 plant-IRR that-DEF hunger die1-PRES develop-IRR

Doing this if hunger comes, a man who doesn't plant a garden, that one will become hungry.

[Garden 003]

(184) *Amai amo sagalahilä amo sagai amo hä*
ama-i amo saga-lahilä amo saga-i amo hä
 pro.verb-PAST that plant-SEQ that plant-NR.PAST that therefore

nahamadeseda awälahilä abolä elö yalalo
na-ha-made-seda awä-lahilä abolä elö yala-lo
 consume-PRES-PERF2-COND leave2-SEQ then another horizontal.fence-IRR

yalalahiläda amo nolahilä hawa hehelä siabulu
yala-lahilä-da amo no-lahilä hawa hehelä siabulu
 horizontal.fence-SEQ-CMPL.CL that pull.up-SEQ flora greens sweet.potato

hawage hä, gai hawage, säfü hawage,
hawa-ge hä gai hawa-ge säfü hawa-ge
 flora-TOO therefore banana flora-TOO NG.asparagus flora-TOO

baile hawage, öde hawage, nelebo amo sulubadela
baile hawa-ge öde hawa-ge nelebo amo sulubade-la
 sugar.cane flora-TOO pitpit flora-TOO something1 that all-COMIT1

gaula alahilä sagai sagalo.
gau-la a-lahilä saga-i saga-lo
 hold-SIM go2-SEQ plant-NR.PAST plant-IRR

So after planting, when that garden is all eaten, leaving it, then after building another fence, cleaning it the greens and sweet potato plants, too, therefore, banana plants, too, asparagus plants, too, sugarcane plants, too, pitpit plants, too, whatever everything together carrying to the garden then it can be planted.

[Garden 004]

- (187) *Gisi amo nolahiläda hä siabulu amo*
gisi amo no-lahilä-da hä siabulu amo
 grass that pull.up-SEQ-CMPL.CL therefore sweet.potato that
- aligi diëda sagalo eedo amo hi alahilä*
aligi-Ø di-ëda saga-lo eedo amo hi-Ø a-lahilä
 develop-PAST be.lie-COND plant-IRR father that EMPH.p-3sg go2-SEQ
- siabulu hogola nulo.*
siabulu hogo-la nu-lo
 sweet.potato look.for1-SIM consume-IRR

After pulling that grass therefore, if those sweet potatoes are grown, the garden owner himself, after going, finding sweet potatoes he can eat. [Garden 007]

- (188) *Säfü amoge, bailege, ödëge, nelebo*
säfü amo-ge baile-ge ödë-ge nelebo
 NG.asparagus that-TOO sugar.cane-TOO pitpit-TOO something1
- sagai amo gadola baboginige, nelebo sagai*
saga-i amo gado-la babogini-ge nelebo saga-i
 plant-PAST that be.like-SIM pumpkin-TOO something1 plant-PAST
- amo gadola sulubada amala neala nulo.*
amo gado-la sulubada ama-la nea-la nu-lo
 that be.like-SIM all pro.verb-SIM get-SIM consume-IRR

That asparagus, too, sugarcane, too, pitpit, too, whatever he planted like pumpkin, too, whatever was planted like all that same thing getting he can eat. [Garden 008]

Assembled free translations:

So in our planting a garden, asparagus, too, sugarcane, too, banana, too, planting, sweet potato, too, pumpkin, spinach, whatever we will eat we can plant. We garden owners ourselves, if things grow well, getting them can eat. Doing this if hunger comes, a man who doesn't plant a garden, that one will become hungry. So after planting, when that garden is all eaten, leaving it,

then after building another fence, cleaning it the greens and sweet potato plants, too, therefore, banana plants, too, asparagus plants, too, sugarcane plants, too, pitpit plants, too, whatever everything together carrying to the garden then it can be planted. After completely planting the garden, the trees in the garden can be cut. After cutting the trees, to cause that garden to grow well therefore after cutting the trees, the grass can be pulled so those sweet potatoes will grow. After pulling that grass therefore, if those sweet potatoes are grown, the garden owner himself, after going, finding sweet potatoes he can eat. That asparagus, too, sugarcane, too, pitpit, too, whatever he planted like pumpkin, too, whatever was planted like all that same thing getting he can eat.

NAGE CLAN TRADITIONAL TEXT

- (189) *Nage fi ado.*
nage fi ado
 Nage.clan clan talk

Nage clan story.

[Nage 001]

- (190) *Sibafali Nage dolö afädë bagoi amoïe udia*
siba-fali nage dolö afädë bago-i amo-ïe udia
 before-INTNS1 Nage.clan male one die1-PAST that-GEN female

didalo sulo
didalo su-lo
 widow be.sit-PAST.ex

Long before, there was a dead Nage clansman`s widow.

[Nage 002]

- (191) *Udia amo sebegi fagulo hagai meli.*
udia amo se-be-gi fagulo hagu-i meli-Ø
 female that be.sit-IMPV-FV-SUB cloth cover1-PAST see-PAST

While this woman was there she became pregnant.

[Nage 003]

- (192) *Amalahilä salea udia amo malö ägüi.*
ama-lahilä sa-lea udia amo malö ägü-i
 pro.verb-SEQ be.sit-ASP female that child carry-PAST

After being thus this woman had a child.

[Nage 004]

- (193) *Malö amoïe eedo amo nowedula asusugai.*
malö amo-ïe eedo amo nowe-du-la asusuga-i
 child that-GEN father that who-DUB-COMP forget/confuse-PAST

She was confused wondering who this child's father was.

[Nage 005]

- (194) *Amalahilä segeyo afädëgi gasigi busa dabugi öhööö*
ama-lahilä segeyo afädë-gi gasi-gi busa dabu-gi öhööö
 pro.verb-SEQ day one-LOC be.dark-SUB head lay-SUB game.animal

nufi dibe meli.
nufi-Ø di-be meli-Ø
 hit1-PAST be.lie-IMPV see-PAST

After being thus one night laying her head down she saw a dead cuscus lying there.

[Nage 006]

- (195) *Öhööö amo dibe amo hawa nuba dibe meli.*
öhööö amo di-be amo hawa nuba di-be meli-Ø
 game.animal that be.lie-IMPV that under snake be.lie-IMPV see-PAST

That cuscus that was there was underneath a snake she saw.

[Nage 007]

- (196) *Nuba amoïe ëï fayedilo.*
nuba amo-ïe ëï fayedilo
 snake that-GEN name snake.spec6

That snake's name is fayedilo.

[Nage 008]

- (197) *Malö amoïe eedo fayedilo.*
malö amo-ïe eedo fayedilo
 child that-GEN father snake.spec6

That child's father was a fayedilo snake.

[Nage 009]

- (198) *Malö amoïe ëï Segeiya.*
malö amo-ïe ëï segeiya
 child that-GEN name Segeiya.person.m

That child's name is Segeiya.

[Nage 010]

- (199) *Malö amoïe edo Faya.*
malö amo-ïe edo faya
 child that-GEN brother1 Faya.person.m

That child's brother is Faya.

[Nage 011]

- (200) *Segeiya ie malö Gaeyo.*
segeiya Ø-ïe malö gaeyo
 Segeiya.person.m 3sg-GEN child Gaeyo.person.m

Segeiya's child is Gaeyo.

[Nage 012]

- (201) *Gaeyo ie malö Hödeseda.*
gaeyo Ø-ïe malö hödeseda
 Gaeyo.person.m 3sg-GEN child Hödeseda.person.m

Gaeyo's child is Hödeseda.

[Nage 013]

- (202) *Hödeseda ie malö Guameda.*
hödeseda Ø-ïe malö guameda
 Hödeseda.person.m 3sg-GEN child Guameda.person.m

Hödeseda's child is Guameda.

[Nage 014]

- (203) *Guameda ie malö Bimo.*
guameda Ø-ïe malö bimo
 Guameda.person.m 3sg-GEN child Bimo.person.m

Guameda's child is Bimo.

[Nage 015]

(204) *Bimo* *ie* *malö* *Guyaba.*
bimo *Ø-ie* *malö* *guyaba*
 Bimo.person.m 3sg-GEN child Guyaba.person

Bimo's child is Guyaba.

[Nage 016]

(205) *Guyaba* *ie* *malö* *Amosa.*
guyaba *Ø-ie* *malö* *amosa*
 Guyaba.person 3sg-GEN child Amosa.person.m

Guyaba's child is Amosa.

[Nage 017]

(206) *Amosa* *ie* *malö* *Ilawi.*
amosa *Ø-ie* *malö* *ilawi*
 Amosa.person.m 3sg-GEN child Ilawi.person.m

Amosa's child is Ilawi.

[Nage 018]

(207) *Ilawi* *ie* *malö* *Domasi.*
ilawi *Ø-ie* *malö* *domasi*
 Ilawi.person.m 3sg-GEN child Thomas.person.m

Ilawi's child is Thomas.

[Nage 019]

(208) *Nage* *dolö* *nili* *siba* *nuba* *fayedilo* *nulo* *made.*
nage *dolö* *nili* *siba* *nuba* *fayedilo* *nu-lo* *made*
 Nage.clan male 1pl before snake snake.spec6 consume-IRR NEG1

We Nage men before would not eat fayedilo snake.

[Nage 020]

(209) *Fi amoïe sibalo ado amo.*
fi amo-ïe siba-lo ado amo
 clan that-GEN before-IRR talk that

That was this clan's old talk.

[Nage 021]

(210) *Nage dolöïe sibalo ado amo.*
nage dolö-ïe siba-lo ado amo
 Nage.clan male-GEN before-IRR talk that

That was Nage men's old talk.

[Nage 022]

Assembled free translations:

Nage clan story. Long before, there was a dead Nage clansman`s widow. While this woman was there she became pregnant. After being thus this woman had a child. She was confused wondering who this child's father was . After being thus one night laying her head down she saw a dead cuscus lying there. That cuscus that was there was underneath a snake she saw. That snake's name is fayedilo. That child's father was a fayedilo snake. That child's name is Segeiya. That child's brother is Faya. Segeiya's child is Gaeyo. Gaeyo's child is Hödeseda. Hödeseda's child is Guameda. Guameda's child is Bimo. Bimo's child is Guyaba. Guyaba's child is Amosa. Amosa's child is Ilawi. Ilawi's child is Thomas. We Nage men before would not eat fayedilo snake. That was this clan's old talk. That was Nage men's old talk.

RETURN NARRATIVE TEXT (FUTURE TIME)

- (211) *Ne mösöa obëgëmolö amo ado.*
ne mösö-a obëgë-molö amo ado
 1sg house-ALL return1-FUT that talk

Talk about when I will return home.

[Return 001]

- (212) *Ne segeyo ohodoa Bosabi gosi hamosa sulolahilä*
ne segeyo ohodoa bosabi gosi hamo-sa su-lo-lahilä
 1sg day three Bosavi.place course do-PRES be.sit-PAST.ex-SEQ

segeyo bigi ülö neala ala
segeyo bi-gi ülö nea-la a-la
 day thumb/five-LOC airplane get-SIM go2-SIM

Dodomolä basigamolö.
dodomolä basiga-molö
 Dodomona.village.ED spill-FUT

After being three days doing a course at Bosavi, on Friday getting a plane going I will get out at Dodomona.

[Return 002]

- (213) *Ami basigala dala aligilahilä Dodomolä ami ne*
ami basiga-la dala aligi-lahilä dodomolä ami ne
 there spill-SIM straight.to develop-SEQ Dodomona.village.ED there 1sg

salele ohodoa namolö.
salele ohodoa na-molö
 week three be.stand-FUT

Getting out there after coming straight to Dodomona I will stay there three weeks.

[Return 003]

(214) *Salele ohodoa nelolahilä salele biweie*
salele ohodoa ne-lo-lahilä salele bi-we-ie
 week three be.stand-PAST.ex-SEQ week thumb/five-HERE-GEN

bigi helegoboda neala Aiya moholö.
bi-gi helegoboda nea-la aiya mo-holö
 thumb/five-LOC helicopter get-SIM Aiya.village go1-FUT

After staying there three weeks, Friday of the fifth week, getting a
 helicopter I will go to Aiya.

[Return 004]

(215) *Aiya ami ne salele afädë nelolahilä salele*
aiya ami ne salele afädë ne-lo-lahilä salele
 Aiya.village there 1sg week one be.stand-PAST.ex-SEQ week

elö amoie osodagi ne udia malöla
elö amo-ie osoda-gi ne udia malö-la
 another that-GEN middle.finger/three-LOC 1sg female child-COMIT1

Salado ödägi gesebea moholö.
salado ödä-gi ge-sebe-a mo-holö
 Salado.village water-LOC bury/immerse-IMPFV-ALL go1-FUT

After staying there at Aiya one week, on Wednesday of the next week, I
 together with my wife and child will go to the Salado baptism.

[Return 005]

(216) *Salado ami ne salele ohodoa namolö.*
salado ami ne salele ohodoa na-molö
 Salado.village there 1sg week three be.stand-FUT

At Salado there I will stay three weeks.

[Return 006]

(217) *Salele afädägida ne nebasea segea ödägi*
salele afädë-gi-da ne n-ebase-a sege-a ödä-gi
 week one-LOC-DEF 1sg 1GEN-man'sZH/WZ/WB-ALL place1-ALL water-LOC

gesolo güla moholö.
gesolo gü-la mo-holö
 crayfish swim1-SIM go1-FUT

One week at my brother-in-law's place I will go swimming in the river for crayfish. [Return 007]

(218) *Gesolo güla nalahilä giso Aiya obëgëmolö.*
gesolo gü-la na-lahilä giso aiya obëgë-molö
 crayfish swim1-SIM consume-SEQ circuitous Aiya.village return1-FUT

After swimming for crayfish and eating them I will finally return to Aiya. [Return 008]

(219) *Aiya obëgëla mösö uli fisi amo hamomolö.*
aiya obëgë-la mösö uli-Ø fisi-Ø amo hamo-molö
 Aiya.village return1-SIM house build-PAST relinquish-PAST that do-FUT

Returning to Aiya I will work on the house I left off building. [Return 009]

(220) *Amo hamola imidila agulahiläda na Fili*
amo hamo-la imidi-la agu-lahilä-da n-a fili
 that do-SIM make.bed-SIM finish-SEQ-CMPL.CL 1sg-ERG pre

Baibolo sugulu olelemolö.
baibolo sugulu le-ole-molö
 Bible school REDUP.ITER-show-FUT

Doing that, making the bed, after finishing I will teach Pre-Bible School. [Return 010]

